THE Soybean Digest

1961 OUTLOOK

- A new record in soybean exports?
- Oil exports up, meal exports down?
- 50c rise in bean prices?
- Meal prices above $60?
- Largest soybean acreage in history?
- Small carryover next October?

See page 10

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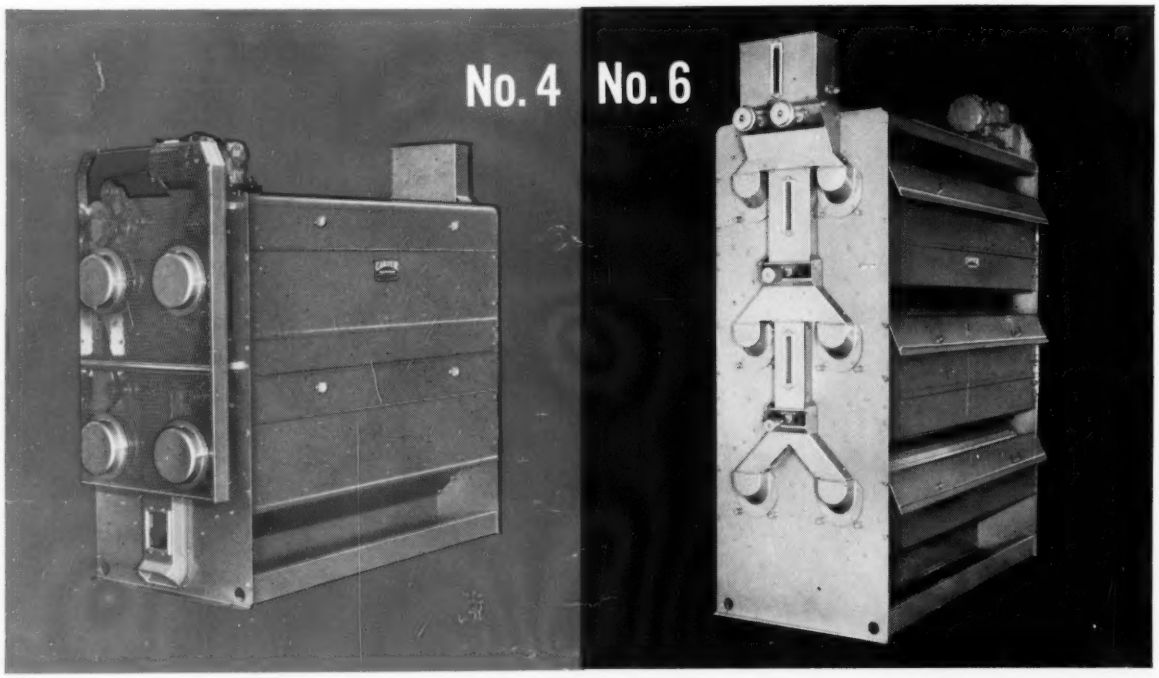

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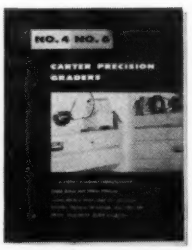

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THE Soybean Digest

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HUDSON, IOWA

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THE SOYBEAN DIGEST

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Objectives of the American Soybean Association include the bringing together of all persons interested in the production, distribution and utilization of soybeans; the collection and dissemination of the best available information relating to both the practical and scientific phases of the problems of increased yields coupled with lessened costs; the safeguarding of production against diseases and insect pests; the promotion of the development of new varieties; the encouragement of the interest of federal and state governments and experiment stations; and the rendering of all possible services to the members of the Association.

EDITOR'S DESK

. . . By GEO. M. STRAYER

MOVES BY USDA ON CROTALARIA

All steps necessary to the assurance of buyers of soybeans and soybean oil meal here at home and abroad that they will not be plagued with crotalaria seed and its toxic effects must be taken. Recent seizures of shipments by Food and Drug Administration have been hard on shippers and buyers. But they have been necessary to continued markets for our products.

Announcement is scheduled soon on steps to be taken by the grain grading branch, Agricultural Marketing Service, USDA. Both moves are designed to protect the feeder of the soybean oil meal, and indirectly the processor who buys the beans and produces the meal.

Crotalaria should never be allowed to mature and be harvested in a soybean field. It is relatively easy to identify and spot, should be removed by cutting or pulling when in bloom. If it is allowed to mature and the seed is harvested, the entire lot of soybeans must be carefully cleaned and the seed removed before marketing.

CAN'T TAKE ALL SURPLUS ACREAGE

As the new Administration takes a look at American Agriculture and the relationships of government to the individual farmer, some immediate problems arise. The machine built for production purposes and the machine built for sales purposes do not match. One has far greater potentials than the other. Either one must be enlarged or the other must be shrunk—we cannot go on indefinitely producing for government storage. Or perhaps a combination of the two is most logical.

The problem of American Agriculture is not one problem—it is a large number of problems, all interrelated. Action taken on one affects the others. We must take a close look at the relationships between soybeans and other crops. We must look closely at the bushelage of 1961-crop soybeans that we really need and can sell. It now appears we will be literally scraping the bottom of the barrel on soybeans when this current crop year ends. We need some increase in acreage in 1961. We need a crop sufficiently large to supply our own needs, those of our overseas customers, and to provide a reasonable carryover.

But we most certainly do not want any more 100-million-bushel increases in 1 year, such as we had in 1958. It took us 2 years to recover from that increase! We need more soybeans, can use and sell more soybeans, and we need to encourage sound acreage expansion.

And in planning for 1961 we need to properly relate the 1961-crop soybean support price to other crops. A support price too low in relation to corn will not bring sufficient soybeans. A support price too high in relation to corn, cotton, rice and other competitive crops will bring an acreage of soybeans too large, will place us in a surplus position. Neither is desirable.

We must make it our business to acquaint incoming USDA officials with what our industry has done in the fields of merchandising and promotion of our products. We must also be sure they understood that just because our industry has done a good job does not mean we can absorb all the surplus problems of other industries within agriculture.

It is our responsibility to see that new officials, unacquainted with the commodity histories of the period since World War II, do not get us mired in the same surplus quicksands as some other commodity groups.

URGE CARE IN SUPPORT PRICE LEVEL

Announcement of the 1961-crop support price on soybeans will probably come later than normal this year, because a new Administration will soon take over, and must be allowed time to make decisions.

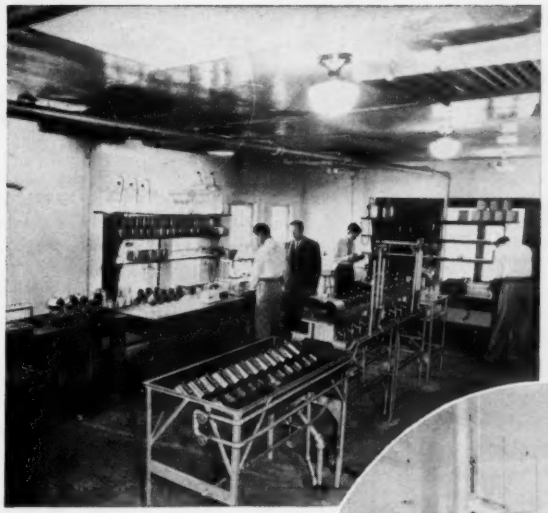
Traditionally the American Soybean Association has been called into consultation as support prices on soybeans were being considered. We assume the new Administration will honor this tradition, will want the advice and counsel of Association leadership. Soybeans are selling above support levels. We want them to continue to do so. We want to continue to produce for consumption, not for storage.

DECEMBER STATEMENT CORRECTED

The type gremlins fouled me up last month! What I meant to say and what I said were different. The first paragraph of my editorial read, "Government figures indicate a probable total export the same as last year—140 million bushels. The same forecast was issued a year ago!"

1958-crop exports were 110 million bushels. FAS officials forecast a 1960-crop export of 125 million bushels. We exceeded 140 million bushels total exports. FAS officials now forecast 140 million bushels for the 1960 crop. I apologize for having made FAS officials appear less conservative than they really were! I hope they are again conservative and we go well beyond the 140 million bushels from the 1960 crop. We have a good start.

7 Chemical Laboratories To Serve You 7



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Serving the Soybean Industry Since 1935

Report on Illinois Soybean Yields

By GEORGE DUNGAN

Professor of Crops Production Emeritus, University of Illinois, in Busy, Ill., First National Bank Farm Notes

A KEEN interest has been shown in soybean yield prospects for 1960, especially because of the dry weather which prevailed this past August. Since I have been recording the fruiting of soybean plants during the past 4 years, the question came to me a number of times: "Are soybeans fruiting like they did in the dry season of 1959 or like they did in 1957 and 1958?"

You may not remember but in 1959 the soybean plants that I kept records on reached a maximum average of 51 fruits per plant on July 16 and then they began dropping fruits so that on Oct. 4 there were only 22 pods remaining on each plant. In 1957, which was not a dry year, the maximum fruit set occurred on Aug. 13 and was 68 fruits per plant on the average. The shedding of blossoms and small pods was gradual but not severe as shown by the fact that 38 mature pods were on each plant at harvest time. Well, the 1960 fruit counting up to and including Sept. 1 fell almost exactly into the pattern of the 1957 data. Perhaps the data taken during the 4 years can be seen more clearly from the table below than in any other way:

NUMBER OF FRUITS PER PLANT CARRIED BY SOYBEAN PLANTS IN 1957, 1958, 1959 AND 1960 (URBANA)

	Number of fruits per plant on the date indicated						
	July 16	July 22	July 29	Aug. 8	Aug. 20	Sept. 1	Oct. 4
1957	12	40	55	60	58	45	38
1958	3	6	11	58	62	56	36
1959	51	49	45	39	25	23	22
1960	20	37	56	70	58	45	—?

As you can see the fruits per plant in 1960 were very similar to the number on the same dates in 1957. Whether the final count of pods will carry out the 1957 pattern we won't know until later, but the indication is that the soybean crop will be fairly good in 1960.

Dr. Dungan reported after harvest that the average number of pods per plant at harvest was 38, exactly the same as in 1957, and above the 36 pods average in 1958 and 22 pods in 1959. He commented: "Farmers' yields in the county have borne out the fact that the 1960 crop of soybeans has been typical of a moderately favorable year rather than a dry unfavorable one as in 1959."—EDITOR.

The High-Profit Farms Have More Soybean Acres

HIGH-PROFIT farms in Illinois have 5% to 10% more acres in corn and soybeans than do low-profit farms. And their yields average 10% to 20% higher, according to an analysis of Illinois farmers' records by University of Illinois agricultural economists D. F. Wilken and R. A. Hinton, presented at the UI Farm and Home Festival.

Operators of the high-profit farms select crops that suit the capabilities of the soils on their farms. They follow balanced fertility programs and sell their crops for prices above the average obtained by other farmers.

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THE NEWS IN BRIEF

THE CROP, MARKETS AND OTHER ITEMS OF NOTE

Clouds on the Horizon

The final soybean crop report of the U. S. Department of Agriculture and a big November crush have had a bullish effect on the markets. Observers see the possibility of a very tight supply situation later in the season.

But two big question marks remain at this time concerning the market outlook. One is the **possibility of U. S. soybean oil being priced out of the European market** to some extent. The other is the **volume of soybeans and soybean meal that Red China may make available for export.**

The possibility of U. S. soybean oil becoming overpriced in comparison with other oils in European markets with resultant damage to our export market is being pointed out by some observers who note the increased availability of peanut and coconut oils, and the fact the soybean oil has been selling at a higher price than cottonseed oil abroad. Some also believe a substantial increase in price support on 1961-crop soybeans could attract a big expansion in soybean acres and result in a huge surplus of oil a year from now. (For further outlook information see pages 10 and 22.)

On the other side of the coin, official reports the last of December were that Red China's farm crops have suffered severe drought damage and are in the worst condition in many years, which may result in few Chinese soybeans being exported. It has been reported that Russia has failed to ship soybean meal to Norway and Denmark against business transacted several months ago, which apparently reflects failure of Red China to ship soybeans to Russia. We have other reports that indicate China may not be coming through on soybean deliveries. If this is true it could mean a larger market for U. S. soybeans in coming months. (For further outlook information see pages 10 and 22.)

Expanding Market Seen in S. A.

Latin American countries are a market for soybean products that we do not want to ignore, says Howard L. Roach, president of the Soybean Council of America, Inc. **It is possible to achieve annual sales of 75,000 to 100,000 metric tons of U. S. soybean oil within 5 years in five countries**—Peru, Chile, Ecuador, Colombia, and Venezuela—says Mr. Roach.

Mr. Roach and R. W. Fischer, his assistant, returned to the United States just before Christmas after a survey of the five countries. They attended a conference at Lima, Peru, that included U. S. Agricultural attaches and representatives of refiners, processors and hydrogenators of those countries just 14 months after a similar conference was held with the same groups.

Mr. Roach and Mr. Fischer found tremendous interest on the part of the South American fats and oils industry in securing the help of the Soybean Council in the field of fats and oils and in improving animal and human nutrition.

Mr. Roach said each country has programs under way to make it eventually self-sufficient in fats and oils. But this will take 10 to 20 years to achieve, and in the meantime consumption of fats and oils is rising faster than production, which means a growing market for U. S. vegetable oils. Mr. Roach said Venezuela is abandoning efforts to cultivate coconuts due to the high cost of production and disease problems, also the low value of the meal.

Industrial uses, particularly paint, offer a growing market for soybean oil in Latin America, said Mr. Roach. South Americans are large consumers of paint. "These countries have the fastest growing population of any area in the world, with tremendous natural resources. And more stable governments are on the way," he said.

Market development activities by the Soybean Council are being initiated in France, which is another growing market for U. S. soybeans and soybean products, particularly meal. Fred R. Marti, the Council's director

of overseas operations, and Juan de Madariaga, the assistant director for Spain, were recently in France, conferring with representatives of the mixed feed industry and making preliminary plans. A livestock feeding seminar is planned to be held in two parts, in April and June. There are over 1,000 mixed feed plants in France. Soybean imports reached 75,000 metric tons in 1959 and were expected to show an increase in 1960.

Edward M. James, technical consultant for the Soybean Council, completed assignments in Pakistan and Egypt in December. He spent some time with the vanaspati manufacturers of Pakistan, working with them in solving the technical problems of using soybean oil in their product. Soybean oil is beginning to replace the traditional cottonseed and peanut oils in vanaspati. He also spent 10 days in Egypt conferring with the oil mill men and vegetable oil importers in that country.

December Export Business

In Mid-December **Spain rejected all offers for sale of U. S. vegetable oils for January-March delivery under an ICA authorization** for 112,000 metric tons, stating prices were too high, so apparently immediate needs for oil are not as pressing as believed.

December export sales of vegetable oils under P. L. 480 included purchase by the Republic of Korea of 2,700 metric tons of cottonseed cooking oil in drums, the total amount of a recent authorization. Greece bought 10,000 metric tons of fully refined soybean oil, part of a 16,000-ton authorization. East Pakistan bought 12,000 metric tons of refined cottonseed and soybean oil in drums, leaving about 2,300 metric tons to be bought under authorization. It was reported that a request by Pakistan was pending for about 100,000 metric tons of edible oils for the June 1961-June 1962 period, with at least 30,000 tons to come out of the current U. S. crop season.

The livestock bureau of the Japanese Agriculture-Forestry Ministry requested other branches of the government for emergency imports of soybean meal totaling 40,000 metric tons in December and January, and for 34,000 metric tons of soybeans to be purchased in February and March. The emergency purchases would increase total planned imports for the December-March period from 84,000 to 99,000 tons in soybean equivalent. The additional imports of meal could come from either China or the United States, but Japan was unable to secure an initial shipment of so-called Russian meal in December. Japan asked for tenders of 20,000 tons of U. S. soybean meal for December shipment and actually completed purchase on 13,000 tons.

Our reports are that Italy may import up to 300,000 metric tons (11 million bushels) of soybeans during 1961, and in addition at least 100,000 tons of vegetable oils. The United States exported 4 million bushels of soybeans to Italy during the 1959-60 crop year.

A grant of 42,259,992 lire ($68,052), has been made to the Experimental Station for the Industrial Application of Oils and Fats, Milan, Italy, for basic research aimed at developing new industrial chemicals from soybean and linseed oils, the U. S. Department of Agriculture announces. The grant was awarded under a program financed by foreign currencies accruing to the credit of the United States from the sale abroad of surplus agricultural commodities under P. L. 480. The research is administered by the foreign research and technical programs division of USDA's Agricultural Research Service. The term of the grant is 4 years.

Jan. 31 Is the Final Loan Date

Growers who are still holding 1960-crop soybeans are reminded that final date for taking a loan or purchase agreement on 1960-crop soybeans comes on Jan. 31. With present prices well above supports it is not expected that many producers will bother with either type of price support.

But farmers needing working capital and who feel that price will be sufficiently higher later in the year to justify the cost of loan or purchase agreement, **can easily arrange them during the remainder of this month** by seeing their county ASC committees.

U.S. production of mellorine and other frozen desserts made with fats and oils other than milkfat in November was estimated at 2,760,000 gallons, 16% larger than in November 1959, and 44% greater than the 5-year average for the month.

PHILLIPS 66

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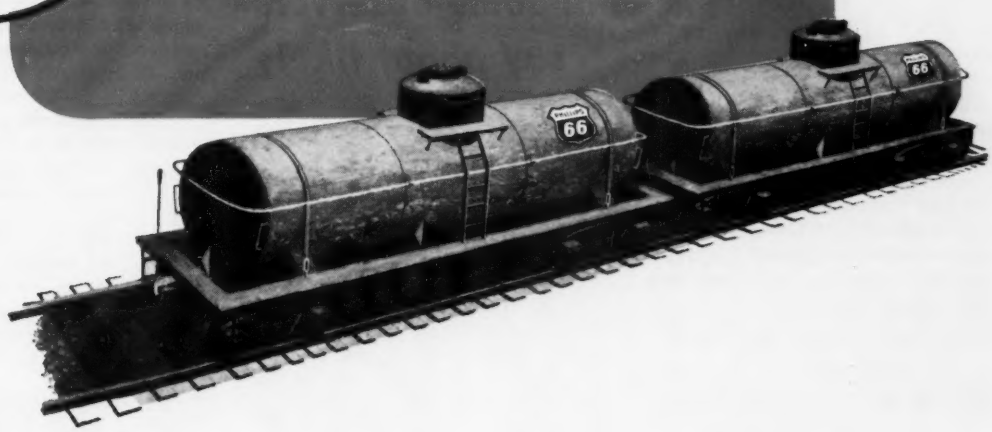

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1960 CROP
What's Ahead?

Here is what some observers say about likely developments in coming months

Supply-demand will be even more closely adjusted for the soybean crop in the 1960-61 marketing year than it was last year. There will be at least a small increase in acres planted to soybeans next spring. And the carryover next fall will be even smaller than the 23 million bushels carried over from last Oct. 1.

EACH DECEMBER the Soybean Digest asks a number of economists, processors, handlers and growers for their opinions on the outlook for the coming year.

There is more agreement and less controversy about the outlook this year than there has been for several years. The paragraph above about sums it up.

Of course there is some disagreement over details—on the size of the crush, for instance. And some observers do question whether the export outlook for soybean oil is quite as rosy as painted. They think there is a distinct danger soybean oil may be priced out of world markets.

The U. S. soybean crop has varied between 538 and 580 million bushels the past 3 years:

1958—580 million bushels.

1959—538 million bushels.

1960—560 million bushels.

Each year for the past 3 we have started with total supplies in the neighborhood of 600 million bushels, but the carryover has been growing progressively smaller. Markets have been expanding while production has stood still waiting for demand to catch up with supplies.

T. A. Hieronymus, University of Illinois agricultural marketing specialist, pointed out at the soybean meetings in Memphis last August that 2 years ago we were aghast at the prospect of a 600-million-bushel supply of soybeans, but this year we look at anything less than 600 million bushels as being a "tight fit." This, said Dr. Hieronymus, shows the "extreme growth" in the market for soybean products.

Here is the way the outlook was outlined for 1960-61 by George W. Kromer at USDA's annual outlook conference in Washington (see page 5 of the December Soybean Digest for more details):

1—Soybean supplies Oct. 1 totaled 582 million bushels, slightly below the 600-million-bushel total of the past two seasons.

2—Carryover stocks Oct. 1 were 23 million bushels compared with 62 million last year. But free stocks were larger as Commodity Credit Corp. held only 9 million bushels as compared with 58 million bushels a year ago.

3—The season's average price for soybeans may be about $2. This is the same as in 1959-60, but more variation is expected with more than the usual seasonal increase after the harvest lows.

4—CCC sales policy will have less effect on prices than it did last year.

5—Soybean crushings are forecast at about 400 million bushels, nearly the same as for the past 2 years.

6—A crush of 400 million bushels will produce about 4.4 billion pounds of crude soybean oil, about 1 billion pounds above domestic demand, and this surplus will probably all be exported; along with about 9.3 million tons of soybean oil meal.

7—Larger supplies of soybean meal will be available for livestock feeding at 5% to 10% lower prices than in 1959-60.

8—A soybean crushing capacity of 525 million bushels is 25 million bushels more than last season. There will be more unused crushing capacity in relation to the beans available, which should result in strong competition for beans and a continuation of relatively small processing margins.

9—The price spread between beans and oil and meal will average slightly above the 23¢ per bushel of 1959-60, which was the smallest margin since 1954.

10—Exports of soybeans are forecast at 140 million bushels, about the same as for last year.

11—Carryover stocks on Oct. 1, 1961, may be around 10 million bushels, less than half as much as last year.

12—Soybean oil prices (crude Decatur) are expected to average about 9½¢ to 10¢ per pound, about 15% to 20% higher than the 8.3¢ average in 1959-60. There is the strong possibility of some rise in soybean oil price later in the year.

13—The outlook is for soybean acreage to expand some in 1961, with favorable prices of soybeans at spring planting time as compared with the support price for corn likely to be an encouraging factor.

Now for some comments:

The Year's Crush

Some processors question whether the year's crush will reach the 400-million-bushel government estimate.

Glenn Pogeler, North Iowa Cooperative Processing Association, Mason City, comments: "The crushing capacity is all of 525 million bushels and my estimate is that it is probably closer to 535 million. We certainly have enough crushing capacity to take care of our domestic needs plus a considerable amount of export business."

But Pogeler adds: "If we are to attain a 400-million-bushel crush we will need a considerable improvement in the processing margins. The first quarter of the year now appears to result in the poorest conversion that we have seen for several years. This is the time of year

when the mills should be making money."

Quoting L. R. Brewster, General Mills, Inc.: "The October crush was reported at 35.5 million bushels, slightly more than the October 1959 crush of 35.3 million bushels. However, gross margins were 13¢ versus October 1959 gross margins of 27¢. With margins this low processors will be reducing their crush much earlier this year." Brewster estimates a total crush of 380 million bushels.

It might be noted that last year's crush totaled 392 million bushels, below the 400 million estimated by USDA, but above the 375-million figure of some processors.

Export Outlook

The export market continues to loom large, in part due to governmental programs and the export efforts of the American Soybean Association and the Soybean Council of America, Inc.

Over 40% of the 1959 soybean crop was shipped abroad—142 million bushels as beans and the equivalent of another 86 million bushels as oil.

Brewster of General Mills predicts we will export 150 million bushels of soybeans, 10 million above the government estimate.

Quoting Merrill Lynch, Pierce, Fenner & Smith, Inc., brokers: "World demand should bring a repeat of last year's record soybean exports. European demand could be a shade lower but Japan is likely to make that up. If China cuts exports due to weather we should gain them, but if Japan's internal troubles intensify, there would be talk of better Sino-Japanese trade relations. But we should increase European exports if Japan turned to China.

"Europe's growing livestock industry needs the protein from our soybeans with the oil portion likely to be disposed of readily. But we are not too sure that meal demand, both export and domestically, won't present a problem."

Mr. Pogeler at Mason City makes the following comment on the export markets: "One major competitive factor that the trade seems to have ignored so far is that cottonseed oil prices are below soybean oil prices in Europe. This will have a tendency to reduce the total demand for soybean oil. We also have increased supplies of peanut and copra oils, and we cannot shake off the competitive angle. The price relationship is now one that will tend to reduce soybean oil consumption in favor of other edible oils.

"The meal demand in Europe surely will be down some because of the large supply of feed grains. On the other side of the coin, soybean meal prices are at the lowest level for several years. We are competitive with other proteins and for the long run this should tend to stimulate consumption. Total demand and prices seem to point upward."

Price Outlook

Brewster at General Mills predicted Nov. 28: "Within the next 6 to 8 weeks prices of soybeans and soybean meal are going higher while soybean oil should hold its present level, and this trend will likely continue until the 1961 crop of soybeans is ready for harvest." By mid-December there had already been considerable rise in bean and meal markets.

Dwight L. Dannen, Dannen Mills, Inc., St. Joseph, Mo.: "I question whether farmers will average $2 per bushel for their soybeans. Even if we have a sharp runup in prices later in the season, so many of the farmers sold beans early that there will be fewer on hand to sell at a higher price to bring up the average. Most farmers in this section were quite satisfied with what they got for their soybeans, however, because they had excellent yields and were able to get 10¢ to 15¢ over the loan price."

And Pogeler at Mason City: "Statistics in general are bullish and should point to higher prices for soybeans. As we look at the products though, the statistics are not nearly as bullish, and since soybean prices are determined by product prices, we have a dampening effect.

"A short supply usually means an early market runup and the season's highs made early and then a declining tendency later in the season.

"We are competing with a total supply of feed grains which are at a record high, and we cannot forget the competitive position with corn, grain sorghums and all other feed grains. Farmers have proved that they can reduce their consumption of soybean meal and use cheap corn.

"I disagree with USDA as to the timing of the price runup. I feel it will have to come early if at all."

Leonard W. Schruben, professor of agricultural economics at Kansas State University, says the odds favor a moderate rise in soybean prices after a harvest season low around the support price. He believes a seasonal rise within the range of 25¢ to 35¢ per bushel is the most logical prospect. He suggests that we watch exports and changing livestock numbers for price clues.

Quoting Purdue University Marketing Guides, issued by the University economists: "Soybean prices are expected to increase gradually and to reach their peak in late spring or summer. This will likely be enough to justify holding beans now in storage.

"Soybean meal prices . . . can be expected to rise gradually until next summer."

Conrad Leslie, market analyst for the Francis I. duPont & Co., Chicago, writes: "One is always hesitant about staying with 'the crowd' when all are in agreement that soybean prices will ultimately work higher. However, at this time there appears to be almost nothing to dispute the thinking of the majority. The question of how high seems to me to depend on the following:

"1—How long soybeans remain below $2.25 Chicago and thereby stimulate disappearance.

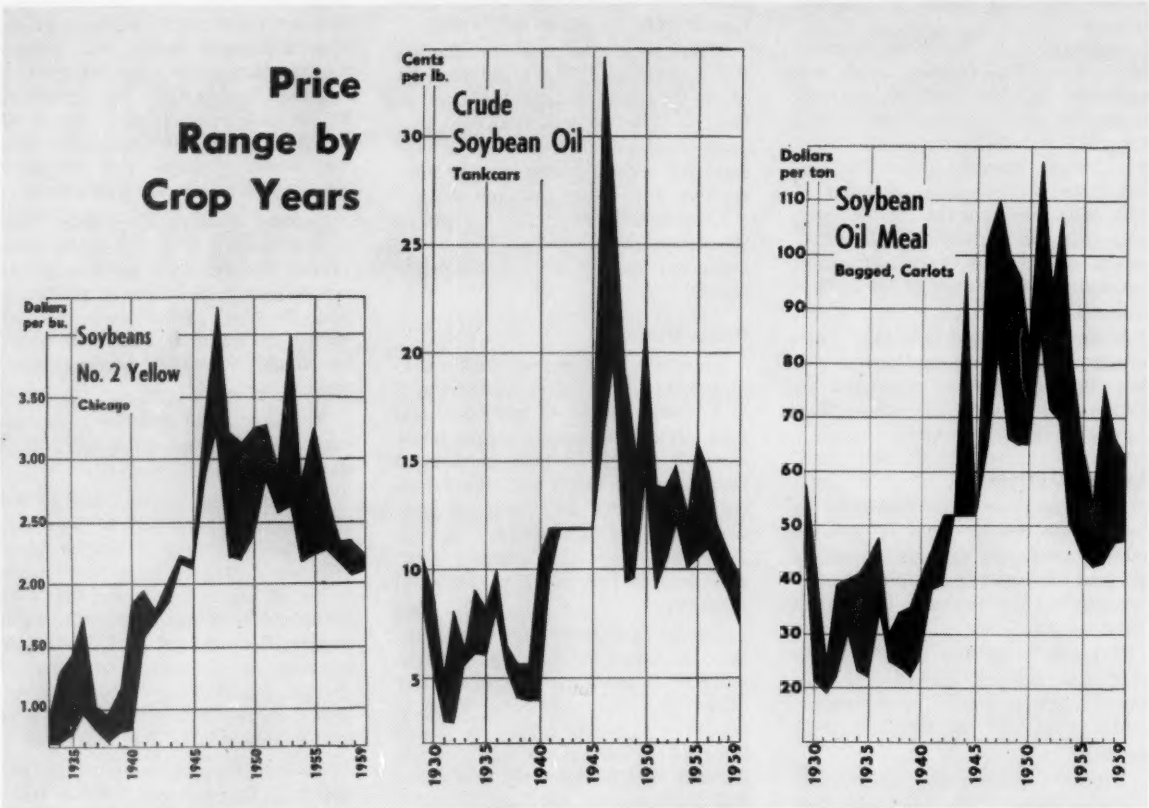
"2—The level at which the new Secretary of Agriculture sets the 1961 loan."

Quoting Dannen at St. Joseph: "With soybean meal priced as low as it is, we're bound to see a bigger consumption, and probably a sharp runup later in the season, which may make the average price nearer to last year's than the 5% to 10% decline the government has indicated."

Brewster comments on the outlook for oil: "There appears to be a continued good demand for soybean oil and with a lower yield per

Unusual Crop

To say the least, the 1960 soybean crop was a most ununusual one. The extremely long growing season and the excellent harvest season helped the crop to make a better record than most people thought it would. We were most pleased with the quality and appearance of the soybeans we received.—DWIGHT L. DANNEN, PRESIDENT, DANNEN MILLS, INC., ST. JOSEPH, MO.



bushel this year, and potentially lower rate of crush, it should continue to command a price in the neighborhood of 10¢ a pound."

Next Year's Carryover

Trade News Service, New York, has a somewhat pessimistic view about the outlook for the year and the resultant carryover: "In view of the relatively high prices so early in the season, the relative cheapness of competitive oilseeds grown elsewhere, in conjunction with the comparatively higher prices for soybean oil, we may find that the demand for U. S. soybeans will not be quite as brisk as has been noted the past season. With the speculator in the driver's seat, the market could well hold up for some time to come but we may find the carryover at the end of this season above the 23 million bushels of this year."

Brewster at General Mills estimates the carryover next Oct. 1 at 16.4 million bushels but says this may be high.

1961 Support Price

A larger part of the crop moved directly to market during harvest and farmers were believed to be holding a smaller part than in recent years.

There appears to be little disposition to place soybeans under the loan, and it is not expected that CCC price operations will be any large factor in the market.

The 1961 support price on soybeans had not been set at press time. It is expected that the American Soybean Association will be consulted before the support price is set by the new Secretary of Agriculture. So far, ASA has made no recommendation on the 1961 support price, which ASA spokesmen feel should be in proper relationship with other crops. ASA directors say until the 1961 program for corn is known, for instance, it will be impossible to recommend a soybean support price that will secure the needed acreage without flooding the market.

There has been some talk that the support price will be raised from $1.85 to $2.00 in 1961.

Concerning the support price, we have two opposing views, one from a processor and one from a grain handler.

Mr. Pogeler at Mason City has the following to say: "My only hope is that the politicians do not tamper with the support level for this year. Our goal as an industry is to produce soybeans and soybean products for the market and I believe the users will have to make the decision as to total consumption of products. This can best be done in a free market where prices are competitive with other competing products."

But Paul C. Hughes, Farmers Soybean Corp., Blytheville, Ark., comments: "I am a firm believer that the $1.82 support price of the past 2 years is too cheap for our area and a support price of $1.95 would improve the farmers' income without causing the government to buy soybeans.

"Today I bet the farmers in our area are holding less than 7% of the 1960 soybean crop. Any improvement in price the ASA or the market makes for the balance of the season will be mainly for the benefit of soybean handlers.

"A $1.95 support would give the farmer encouragement to store without too big a risk. Let him get some of the benefit of a market rise."

The 1961 Acreage

USDA's Agricultural Marketing Service points out that if the uptrend of soybean consumption is to continue into 1961-62, production also must expand. AMS says the acreage planted to soybeans for

harvest next spring may possibly exceed the record 23.9 million acres harvested in 1958. Acreage harvested in 1960 was 23.5 million.

Quoting Pogeler at Mason City: "I feel we can expect an increase of 10% to 12%. As long as we can price soybean products competitively we can expect an increase in total demand and with it an expansion of the industry. I feel that acreage must go up in the future."

J. E. Johnson, Champaign, Ill., comments: "Nothing at present indicates there will be a marked increase in acreage. Those states of small production, if livestock states, prefer to grow more corn or grain sorghums for their feeding requirements."

Hughes at Blytheville, Ark., in Mississippi County, the nation's leading soybean county, sees little change in soybean acres there in 1961, but 1,000 to 2,000 more acres in cotton. "It is the cotton acreage and not the support price that determines our soybean acreage."

He looks for weather to be the only factor that might change the total acreage in soybeans next spring. Bad spring weather might cause some abandonment of cotton acreage to soybeans, or might make it impossible to follow small grain with soybeans.

Sees a Strong Meal but Dismal Oil Market

By T. A. HIERONYMUS
Professor, Agricultural Marketing
University of Illinois

I THINK THAT there is a pretty good chance of a substantial rise in the price of soybeans sometime before the season ends. This is particularly true if we keep the price at moderate levels for the next couple of months. A crush of 400 million bushels and exports of 140 million will get us down to a minimum carryover. When we have run out of soybeans in the past the price had a sharp runup. The need for meal appears to be greater than that for oil, so that the shortage will be a meal shortage rather than an oil shortage. A shortage of meal usually produces more fireworks in soybean prices than does a shortage of oil.

The meal market will get quite strong sometime during the spring or summer. In the first place the crop year 1959-60 was the first time we have failed to have a trend increase in the demand for meal. This was primarily the result of overpricing of soybean meal early in the year. Note that we had $62 meal and $12 hogs at the same time. The trend growth in meal use has not stopped. It appears likely that there will be a need for more than the meal from 400 million bushels of soybeans as a result of trends.

In the second place the spring pig crop and the spring chick hatch will be larger which should result in more than a usual seasonal increase in meal demand.

In the third place livestock prices are higher than last year and should continue favorable through next summer. The demand for meal is closely tied to the level of livestock prices, particularly the prices of hogs and eggs.

Fourth and finally, the price of meal has been low for several months, and I expect that it will continue at moderate levels for another 1 to 3 months. Coming in the fall of the year low meal prices tend to develop a large utilization base that serves as the basis for a large spring demand. My expectation of higher meal prices in the spring and summer becomes stronger the longer we keep meal in the $45-$50 range. At this moment it looks a little fantastic but I keep getting estimates of the spring and summer meal prices very substantially in excess of $60 a ton.

Soybean oil is weak and the outlook is dismal. World production per capita is at an alltime record high. There are substantial increases in world production outside of the United States that will compete with us for markets. The USDA estimate of a 25% increase in P. L. 480 business appears to be based on a smaller olive crop than now appears probable. So while P. L. 480 business will be up it will not be up enough to take up the slack. The way I do my sums in the oil situation, a substantially larger export volume will be needed than last year. Last year our large dollar volume was down at prices about 20% below current levels. There is not now any incentive for inventory accumulation as there was last year. Whether or not oil goes into the kind of weak situation that appears likely at this time depends on what new programs the USDA develops.

There will not be any major changes in agricultural legislation. Two administrative actions pertaining to soybeans appear likely. As oil gets into obvious difficulty all possible steps will be taken to stimulate additional P. L. 480 business and a charity program for oil will be initiated. This latter might be enough to carry the price of oil to a new season's high.

Second, I expect an increase in support price for 1961-crop soybeans. Please do not construe this comment to mean that I approve of an increase.

The crush margin will remain narrow all year. The only hope that I see for it at all is during the rather short period of rapidly rising meal prices in the spring and summer.

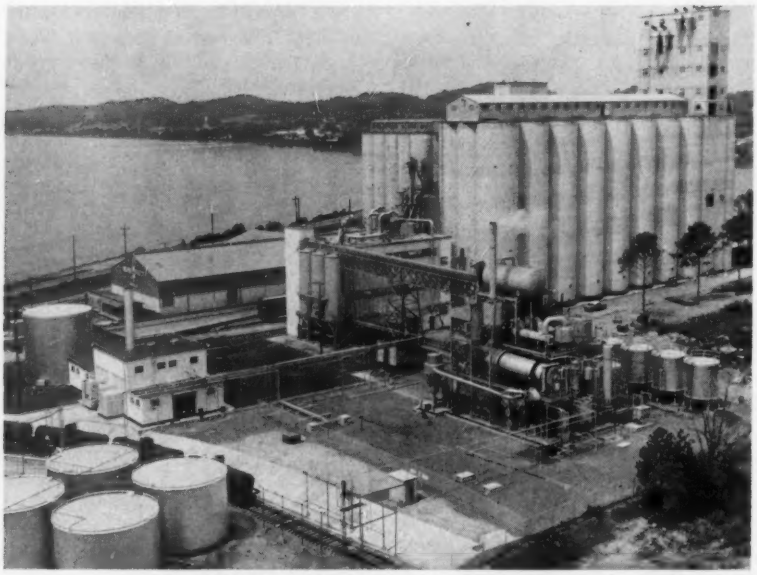
The question of the size of soybean export demand rests on the status of feeding developments in Europe. Soybean exports to Europe were stimulated last year by a shortage of feed grains and pasture, resulting from European drought. The feed crops in Europe this year are quite good. On the face of it this should reduce the demand for soybeans; however, the development of the broiler industry and more intensive feeding practices for swine may more than offset the decrease from plentiful feed concentrate. At this time I lean a bit on the high side of 140 million bushels.

In view of the highly questionable oil situation it is not possible to put an amount on the extent of the soybean price increase. It may be that the meal increase will be merely offset by an oil decrease. On the other hand, if some strong administrative action is taken in oil to hold it in the 10¢ area or possibly even increase it, we could very handily get into a soybean price increase of 25¢ to 50¢ a bushel. I do not care to forecast such an increase but the chances of it happening appear to be pretty good.

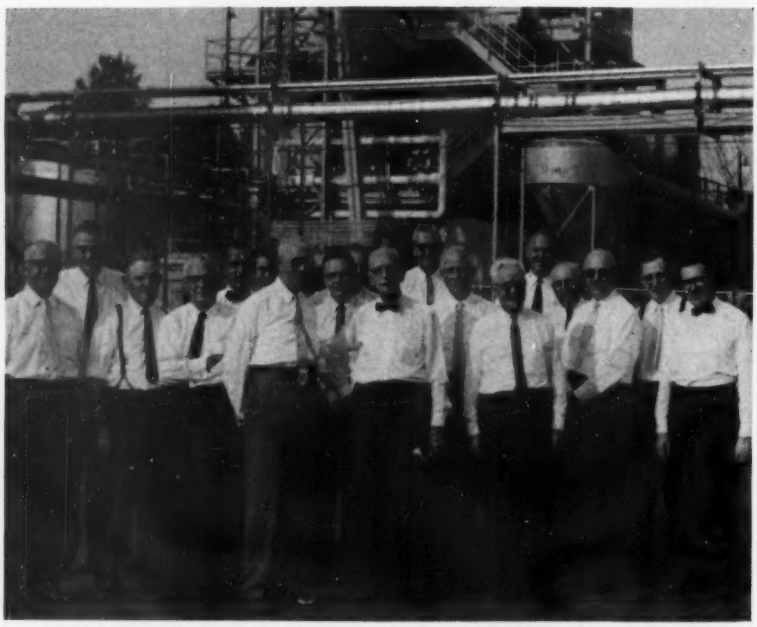
Mobile Shipments

A TOTAL of 16,513,624 bushels of soybeans was received by the Public Grain Elevator of the Alabama State Docks Department at Mobile during the fiscal year Oct. 1, 1959, through Sept. 30, 1960, the Department reports. Shipments for the same period totaled 16,537,033 bushels.

Open New Plant at Guntersville, Ala.



NEW PROCESSING plant of Allied Mills, Inc., at Guntersville, Ala.



INSPECTING the new solvent extraction plant of Allied Mills at Guntersville, Ala., all Allied Mills personnel unless otherwise stated, left to right: E. W. Lenz, president and chairman of the board; J. E. Hunter; Mr. Bray, vice president Harris Trust Co., Chicago; Mr. Heidrick, director, Peoria, Ill.; J. D. Ellington, extraction plant manager; L. T. Murphy, director; L. M. Bolitho, secretary; Ed Buchanan, feed mill manager; P. A. Singer, engineering consultant; Harris Lyon, manager soybean operations; Ed Griffin, vice president in charge of sales; Mr. Patten, director, vice president Commonwealth Edison Co., Chicago; E. B. Copeland, general manager of Guntersville plant; R. E. Clizbe, director, former president Clinton Sugar Refining Co.; F. H. Blough, vice president; J. Bolton, director, Minneapolis; and Art Leither, traffic manager.

A SHIRT-SLEEVED group of executives and guests of Allied Mills, Inc., recently inspected their new soybean solvent extraction plant at Guntersville, Ala.

This new plant, located on the Tennessee River, is one of the most modern and efficient soybean processing plants in the world. Soybeans are collected in the Midwest and barged down the Mississippi and Missouri Rivers and up the Tennessee River to the Guntersville plant. The products from the plant are 50% and 44% protein meal and crude soybean oil. In addition, Allied's Wayne feed mill adjoining the soybean processing plant incorporates soybean oil meal into the feed which is distributed along with the meal itself throughout the Southeast. The crude oil is shipped to refineries where it is incorporated into shortening, salad oil and margarine.

The Guntersville soybean processing plant was put into operation early last summer and is already running at around 40% over its rated capacity of 500 tons of soybeans per day. The high quality of meal and oil products is produced from the most modern equipment known.

The plant was designed and built under the direction of P. A. Singer, special engineering consultant for Allied Mills, together with H. K. Worthington, chief engineer. A "turnkey" contract was awarded the French Oil Mill Machinery Co., which is a highly specialized organization manufacturing and installing oilseed processing equipment. G. L. Levin of St. Paul, Minn., was the structural designer and consultant for the project, and Ryan Construction Co. was the general contractor.

The plant consists of a three-story concrete slip form preparation and meal grinding building and the extraction area. The soybeans are introduced into the preparation building where they are cleaned and cracked, and the hulls removed in order to produce the high protein, low fiber soybean oil meal. The hull-free cracked beans are conditioned and flaked through new high-capacity French flaking rolls before being sent to the extraction area across an elevated bridge.

In the extraction area, the beans are introduced into a French rectangular basket extractor in which the solvent, hexane, is percolated through the beds of soybean flakes to extract substantially all of the oil. The extracted flakes are de-

solventized and given a heat treatment for optimum nutrition in a French combination desolventizer-toaster. The solution of solvent and oil is heated to drive off the solvent and recover the crude soybean oil. So efficient is the machinery for desolventizing and solvent recovery that a tankcar of solvent is used only about every 2 months, although over a million pounds of solvent are pumped through the process every day.

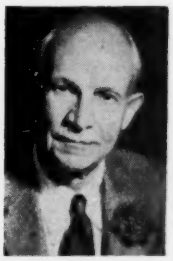
Allied Mills is one of the pioneers in the processing of soybeans. In recent years, it has concentrated its processing activities at Taylorville, Ill. The new Guntersville plant enables the company to greatly expand sales and improve service to the rapidly growing poultry and livestock feed industry in the Southeast.

In addition to Guntersville, Allied Mills has feed mills at Peoria, Ill.; Omaha, Nebr.; Fort Wayne, Ind.; East St. Louis, Ill.; Buffalo, N. Y.; Memphis, Tenn.; Portsmouth, Va.; Mason City, Iowa; Gainesville, Ga.; Everson, Penn.; and Fort Worth, Tex.

John MacMillan Dies; Was Cargill Chairman

JOHN H. MACMILLAN, Jr., board chairman and chief operating officer of Cargill, Inc., Minneapolis, died Dec. 23 after a month-long illness at Durham, N. C., where he had been flown for treatment.

On Nov. 13, shortly before his illness, he had returned from a business trip to Europe and was reported in good health.



John H. MacMillan

Mr. MacMillan was born in Fort Worth, Tex., in 1895 and had been a Minneapolis area resident since 1904. He began his business career in 1919 as a grain buyer and trader for the Cargill Elevator Co. at Duluth, Minn., and in 1926 was elected a director of the firm.

When the Cargill Elevator Co. became Cargill, Inc., in 1932, Mr. MacMillan became vice president and general manager, succeeding his father, John H. MacMillan, Sr. He was named board chairman in 1937.

Mr. MacMillan was well known for designing large elevators for efficient storage and handling of grain, and he was responsible for two developments — accurate temperature measurement inside huge storage bins and development of equipment for rapid loading and unloading of the bins—that were revolutionary in the grain industry. He also pioneered in development of the integrated barge-and-towboat unit now widely used in the inland waterways.

During his 20 years as president, Cargill more than tripled in size. Its annual sales volume is now well over $1 billion, making it the nation's largest grain handling firm. During his tenure the company also became significant in production of vegetable oils.

A brother, Cargill MacMillan, was president of Cargill until July of last year, when he was granted a leave of absence to recover from illness.

How Stinkbug Damage in Soybeans Is Determined

CONCERNING stinkbug damage to soybeans, we have the following from B. T. Skeels, acting chief, inspection branch, Agricultural Marketing Service, U. S. Department of Agriculture, Washington: "Grain inspectors recognize potential stinkbug damage by the presence of puncture marks in the seedcoat of the soybean. Such soybeans are then cut through the punctured area with a razor blade or sharp knife.

"If the punctured area of the soybean is infected with disease-causing bacteria or other micro-organism, a white or cream-colored spot will be found. These spots vary in size and such soybeans are classed as damaged under the official standards.

"Available information on the effect of stinkbug damage in soybeans shows that fat acidity increases and oil content decreases with increases in stinkbug damage."

A statement showing percent of stinkbug damage to soybeans may be included on any certificate of grade when requested by the applicant for inspection, according to the director of the grain division, Agricultural Marketing Service, U. S. Department of Agriculture.

The following statement has been approved to be included on certificates of grade:

"Total damaged . . . . . percent, including . . . . . percent stinkbug damage."

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SOYBEAN COUNCIL OF AMERICA, INC.

Will Open Trade Center in London

New London Trade Center To Push U. S. Products

THE SOYBEAN COUNCIL will be one of the organizations cooperating with a U. S. Trade Center which is to display and promote sales of American products abroad beginning in the spring of 1961. The Center will be operated by the U. S. Departments of Commerce and Agriculture in conjunction with the American Embassy which announced the establishment of the trade center.

The center will serve as a showcase for U. S. products and a focal point for an intensified U. S. trade promotion program. It will be easily accessible to British buyers.

The London center will be the first permanent, government-sponsored trade promotion headquarters of its kind to be established abroad by the U. S. government. The center will greatly extend the services at present performed by the offices of the American Embassy. London was chosen as the site of this first center because Britain ranks second, after Canada, among purchasers of U. S. goods.

It is expected that similar trade centers for promotion of American products will be established in many other parts of the globe.

Marcello Was Guest At Rome Exhibit

DOMINIC J. MARCELLO, Soybean Council representative for Italy, was a guest at the opening ceremony of the First International Exhibit in Rome, Italy, recently inaugurated by the President of the Italian Republic. In addition to Italy, seven countries including the United States were represented at the exhibit, which emphasizes the latest advances in medical and surgical technique and equipment, new methods in therapy, and the role played by protein foods in human nutrition and health.

INTERNATIONAL exhibit at Rome. See above.

In the photo above, left to right in the foreground: Dr. Oscar Moccia, Secretary General of the Presidency of the Republic; Mr. Marcello; Giovanni Gronchi, President of the Republic; and Prof. Pietro Didonna, of the Italian Ministry of Labor.

Krider to Make Survey For Council in Rome

J. L. KRIDER, vice president of Central Soya, Fort Wayne, Ind., is to leave for Europe soon to make a thorough study of the market development operations of the Soybean Council of America, Inc.

J. L. Krider

Dr. Krider will make a survey of the overall program as it is set up in all countries, in an attempt to uncover its strong and weak points, and make recommendations for any needed changes.

On a 6-months' leave from Central Soya to the Council, Dr. Krider will go to Rome early in February. He will be stationed in the Rome office of the Council during the period of the survey.

Dr. Krider has made two previous trips abroad on assignments for the Council, the latest during the summer of 1960.

Council Will Exhibit at Seven Trade Fairs in '61

THE COUNCIL now has definite commitments for exhibits of soybeans and soybean products at seven agricultural and trade fairs during 1961. These include: the World Fair at Cairo, Egypt, Mar. 21-Apr. 21; the International Trade Fair at Poznan, Poland, June 11-25; the National Trade Fair at Zagreb, Yugoslavia, in September; the National Trade Fair in Lima, Peru; the Industrial Fair in New Delhi, India, in November and December; the trade fair at Brussels; and the fair at Verona, Italy, Mar. 12-21.

The Council's mobile feed exhibit which features the use of soybean meal in livestock feed will also travel in Denmark and Austria during the summer and fall months.

Now Can Sell Soybean Oil Straight in Spain

FOR THE first time U. S. soybean oil can be sold directly to the Spanish people without combining with olive oil, it was announced at the 20th International Fair at Zaragosa, Spain. This should result in a marked increase of exports of U. S. soybean oil during the coming year.

The Spanish government has required that imported vegetable oils be blended with home produced olive oil to protect Spanish industry and to make the resulting product more palatable since people were accustomed to the olive oil taste and not soybean oil. But many Spanish people have become acquainted with pure soybean oil through the Soybean Council's exhibits at the trade fairs.

So the Spanish government is now permitting the sale of straight soybean oil because some consumers now prefer it, and it is cheaper than the blend with olive oil—20 pesetas to the litre for the straight soybean oil as compared with 21 pesetas for the blended product.

Javier de Salas, Spanish director for the Council, says sales of U. S. soybean oil in Spain should reach 500 million pounds in 1960-61 under the new ruling, as compared with 446 million pounds this past year. In 1955, before the Council's export program began, sales of U. S. soybean oil to Spain were only 36 million pounds.

Funds For Council in Switzerland, Portugal

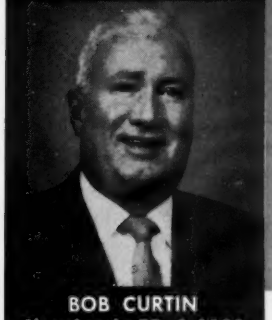
FUNDS ARE now available to the Soybean Council for market development work for soybeans and soybean products in two new countries, Switzerland and Portugal. This is provided by Amendment No. 2 to the world market agreement between the Council and USDA's Foreign Agricultural Service signed Dec. 3.

The agreement also more than doubled the amount of funds available in foreign currencies for market development projects by the Council in 32 different countries. Limited work can also be done in some other countries.

TOM MORAN
New York, CI 7-2520

FRANK TAYLOR
Chicago, VI 8-5410

RALPH HARMON
Atlanta, CE 3-3227



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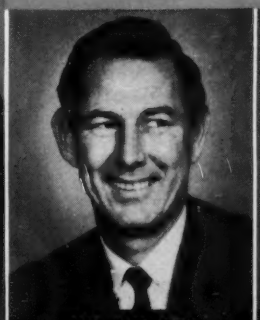

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FACTORY of Yamasa Shoyu Co. with bottled shoyu in background. ASA's David R. Farlow (center) is with the Hamaguchi brothers who own the plant. Y. Hamaguchi, left, was a member of the Japanese shoyu team that recently visited the United States.

A Visit to Two Choshi Shoyu Plants

By SHIZUKA HAYASHI

Managing Director, Japanese American Soybean Institute, Nikkatsu International Bldg., No. 1-Chome Yurakucho Chiyoda-Ku, Tokyo, Japan

SUKIYAKI is never good without shoyu. The shoyu (soy sauce) industry in Japan has an annual production of approximately 1,200,000 metric tons and consumes approximately 150,000 tons of bean meal and 23,900 tons of whole soybeans or a total of 195,000 tons in terms of soybeans imported from the United States.

The shoyu industry is the largest consumer of soybean meal for edible purposes, taking about 35% of the meal produced by the processing mills. Unlike the United States where the meal is used for animal feed, soybean meal is used in Japan for shoyu manufacturing and a smaller quantity is used for miso and other edible purposes.

The quantity used for feed in Japan is approximately 200,000 metric tons, but this usage is gradually increasing.

So oil processors are greatly dependent on the shoyu manufacturers for the sale of their meal.

Before the war shoyu manufacturers used only whole soybeans instead of meal. But due to the fact that oil is not wanted in the processing of shoyu it has become the practice since the war for shoyu makers to use meal. The use of meal has also been encouraged by the government under the allocation system.

There are seven large manufacturers among some 5,000 shoyu makers in Japan. The production of these larger shoyu factories constitutes about 30% of the total domestic production.

We made a tour of Choshi City visiting two of the largest plants, the Yamasa Shoyu Co. and the Choshi Shoyu Factory.

The Choshi factory has, in addition to the usual shoyu plant, oil processing equipment that crushes approximately 15,000 tons of soybeans annually. The meal produced is used exclusively for making shoyu but is not sufficient to take care of the whole requirement of the factory,

This is the only shoyu company in Japan with oil processing equipment. The manager explains the advantage of using their own freshly-produced meal is that it eliminates the process of drying and resteaming later. When the importation of soybeans becomes free under the automatic allocation system other large shoyu manufacturers may set up their own extraction plants. This plant with 1,000 employes is operated under a continuous system with the meal going directly from their oil plant to the shoyu plant. After a year of fermentation shoyu is produced, packed in barrels, tins and bottles. This factory has over 300 fermentation tanks each with a capacity of 30 metric tons, which occupy great space in the buildings. Daily production is 130,000 2-litre bottles.

According to the report of the six-member Japanese shoyu team that recently visited the United States the amino acid soy sauce made in the United States is altogether different from the shoyu produced in Japan.

With a little promotion it will not take long before a bottle of naturally brewed shoyu will be found on the table of every family on the globe.

A. A. System Will Open New Markets

THE GREATEST single factor affecting the sale of U. S. soybeans to Japan is the impending implementation of the automatic approval system by the Japanese government, which is expected during the first half of 1961 and which will allow U. S. soybeans to be exported into Japan without restriction, said David R. Farlow, assistant to the American Soybean Association vice president, who recently returned from a trip to Japan.

"If the Japanese government will allow U. S. soybeans to enter Japan on this basis, without increasing the present duty, I'm sure that it will lead to a much greater consumption of U. S. soybeans," Mr. Farlow said. "When soybeans are allowed to come in under this system, the price of both soybean meal and oil will be reduced to nearer world price levels. When this happens you will see a wider usage of both meal and oil, especially for the mixed feed industry and for margarine."

The livestock industry in Japan has been growing at a tremendous rate and all indications are that growth will accelerate in the future, said Farlow.

Automatic allocation should also make soybean oil more competitive in the margarine market in Japan, Mr. Farlow said. It is generally agreed, he said, that the consumption of margarine will increase greatly there in the future. But the present 20¢-per-pound price of soybean oil makes it more profitable for margarine manufacturers to utilize other oils. Plans are already formulated to promote the use of soybean oil in the manufacture of margarine when soybean oil prices reach a more competitive level, said Farlow.

JAPANESE-AMERICAN SOYBEAN INSTITUTE

PUBLICATIONS

Soybean Gains as Crop in Taiwan

THE SOYBEAN until recently was a minor crop in Taiwan but is of increasing importance because of growing demand for the oil and bean cakes for food.

The first improved variety of soybeans was released for commercial planting in 1956 in Miaoli, prefecture north of Taichung, where the soybean has never been grown before. Within a period of 3 years the area devoted to this variety has been greatly expanded and other new improved varieties have been selected for extension in other districts of the island.

In 1959 the acreage occupied by the new varieties was expected to reach a total of 28,000 hectares, more than 50% of the total planned acreage.

Such rapid increase in the acreage of new soybeans is due to several reasons:

1—The new soybean varieties are of yellow seed type, good for food, oil and bean cakes.

2—They yield significantly better than the native green or black beans, and fit better in the local cropping and rotation system.

3—There is an increasing demand for more soybeans as a result of the increase in population and the expansion of the hog raising program.

The American variety, Palmetto, is promising in North Taiwan, and by 1959 replaced half the acreage of native varieties in some provinces. Palmetto not only outyields the native varieties but matures earlier. This is important, for in some provinces more than 80% of the soybeans are planted in winter on paddy fields between the harvesting of the second rice crop and the transplanting of the first rice crop the following year.

Before the coming of the new varieties, soybeans in Taiwan were grown with very crude cultural methods. No soil preparation or seedbeds were made. The seed was sown broadcast. There was no definite spacing between plants or rows. Under such conditions, no cultivation or weeding were possible and plants were usually heavily infested with insects and sometimes with disease. Consequently, many fields were turned under as green manure before maturing, and those that set seed averaged only about 11 bushels per acre. But cultural practices have been greatly improved since the introduction of the new varieties.

Soybean Improvement and Seed Production in Taiwan. By Chung-Fu Cheng, Chinese-American Joint Commission on Rural Reconstruction, Taipai, Taiwan.

Most Soybeans Grown In Eastern N. Dak.

NORTH DAKOTA had two million-bushel soybean counties in 1959, Richland and Cass. Traill County was third with 252,000 bushels.

Soybean production was mainly concentrated in the southeast and east central districts, with production by counties also reported for the northeast.

Soybean production was reported from 19 North Dakota counties in 1959.

North Dakota Crop and Livestock Statistics. Annual Summary 1959. North Dakota Crop & Livestock Reporting Service, Box 31, Fargo, N. Dak.

Kansas Soybeans Mostly In Eastern Quarter

SOYBEAN production in Kansas is nearly all in the eastern one-fourth of the state, with heaviest concentration in east central and southeast districts.

Kansas had one million-bushel county in 1959, Cherokee, in the extreme southeastern corner. Total state production was 9 million bushels.

Kansas Agriculture, 1959-60. Kansas Crop and Livestock Reporting Service, Division of Statistics, 200 Federal Bldg., Topeka, Kans.

Most South Carolina Counties Grow Beans

FARMERS in 29 of 45 South Carolina counties had some cash receipts from the soybean crop in 1959.

Six counties had one-half million dollars or more receipts. They were: Calhoun $1,811,000; Orangeburg $1,805,000; Allendale $1,159,000; Hampton $961,000; Sumter $596,000; and Lee $523,000.

South Carolina Cash Receipts from Farm Marketing. Crop and Livestock Series No. 22, October 1960. South Carolina Crop Reporting Service, Clemson, S. C.

LETTERS

Meal Used as Glue In Early Twenties

To THE EDITOR:

It has come to our attention that the date of the first use of soybean meal as a plywood glue is in error as stated in our article, "Progress in Soybean Protein Utilization," that appeared in the November 1960 Soybean Digest. This read as follows: "Soybean oil meal was first used industrially in 1927 as a plywood glue." A similar error appears on page 1019 of Soybeans and Soybean Products, Klare S. Markley, editor.

Glenn Davidson, Aurora, Illinois, writes us that the first commercial production of plywood with soybean adhesives occurred in the fall of 1923. Indeed, this commercial production may coincide with the date that the patent application was filed, Oct. 29, 1923 . . . By 1927, four plants were using soybean glue in the Midwest, and the Pacific Coast plywood mills had adopted this glue to the substantial exclusion of other glues that were available.—*J. J. Rackis, chemist, and J. C. Cowan, chief, oilseed crops laboratory, Northern Utilization Research and Development Division, Peoria, Ill.*

Iowa manager reports on SHANZER grain drier

"Volume up 25%, grain quality tops, operating cost at a minimum, thanks to our Shanzer drier. Service from start to finish was outstanding, and we have found their people exceptionally well schooled in every aspect of equipment and overall drying operations."

—Says, Donald M. Hartz, Mgr. Maynard Co-operative Company, Maynard, Iowa

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85 Bluxome Street, San Francisco, California

GRITS and FLAKES . . . *from the World of Soy*

Merge Two North Dakota Farm Equipment Firms

A merger of two of the larger manufacturers of farm handling equipment, Link Manufacturing Co., Fargo, N. Dak., with **West Fargo Manufacturing Co.**, West Fargo, N. Dak., has been announced by company officials.

The business will operate in the name of West Fargo Manufacturing Co., with H. A. Tintes continuing as president. Charles H. Puckering, president of Link, will continue as general sales manager.

The Link Co. was founded in Kansas City in 1913 by H. C. Wallace, retiring chairman of the board, and headquarters were moved to Fargo in 1921. The Link grain blower was one of the first mechanical applications for farm use in grain elevation. Following the war years, auger elevators and grain, feed and material elevating equipment were made.

West Fargo Manufacturing Co. was founded in 1940 by H. A. Tintes to serve expanding demands for auger-type farm grain elevation.

Sales are now made over the entire continent and several foreign countries. A special engineering department was recently added to design large farm and commercial grain, feed and material handling and elevating equipment.

Make Changes in Sales Staff of S. Howes Co.

Changes which include an expanded field sales staff and a realignment of territories have just been announced by the **S. Howes Co.**, Silver Creek, N. Y.

James Everett, district sales manager with headquarters in Toledo, Ohio, is now covering the state of Indiana, and has general supervision of the Minneapolis territory plus the states of Iowa, Illinois, and Michigan.

Floyd M. Garner has recently enlarged his area to cover Oklahoma and Arkansas in addition to Kansas, Missouri and Nebraska.

Representing S. Howes Co. in Louisiana, Mississippi, and Alabama is Dick Clark. He has previously been associated with equipment sales to feed mills and grain elevators.

Another new field sales representative is Jerry Fox, a veteran of 19 years in sales in the farm, feed and fertilizer machinery fields. He has been assigned to territories which include Michigan, western Pennsylvania and northern Ohio, and will make his headquarters in Jackson, Mich.

Consolidate Buhler Mill And Buhler Bros. Firms

The consolidation of Buhler Mill Engineering Co., Minneapolis, and Buhler Brothers, Inc., Englewood, N. J., effective Dec. 31 has been announced by C. R. Moor of Buhler Mill Engineering Co. The two companies have joined to form the **Buhler Corp.**

"Headquarters will be at 4207 Nicollet Ave., Minneapolis, until May 1, 1961, when we expect to move into our new 18,000-square-foot building now under construction at 8925 Wayzata Blvd., Minneapolis," states Mr. Moor.

"In many ways the merger will not affect you, as all the present contracts and obligations were assumed automatically by the new company on Jan. 1. All pending offers or projects are to be continued and the same technical personnel is in charge.

"Dec. 31 was also a significant date for quite another reason. It marked the completion of 100 years of Buhler service to industry. But rather than look back at the past with pride, we prefer to look forward with expectation as we enter our second century with an expanded staff equipped and eager to serve our clients."

Koehler Named Amsco's Central States Manager

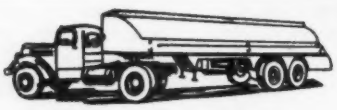
Robert H. Koehler has been appointed manager of the Central States Division of **American Mineral Spirits Co.** He will be manager of Amsco's complete line of petroleum solvents, technical naphthas, and petroleum waxes in the greater Chicago area including Illinois, Indiana, Wisconsin, Iowa and Kentucky.

R. H. Koehler

He is located at Amsco's Midwestern offices at 200 S. Michigan Ave., Chicago 4, Ill. Mr. Koehler had been manager of Amsco's Midsouth district in Memphis, Tenn. He joined Amsco in 1956 as a sales representative in the the Atlanta, Ga., area.

Kreil Is Ohio Valley Amsco Representative

George W. Kreil has been appointed a sales representative in the Ohio Valley division for **American Mineral Spirits Co.** His headquarters will be at Amsco's Colum-

Ship By 

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George W. Kreil

Mr. Kreil will represent American Mineral Spirits Co. in northeastern Ohio and western Pennsylvania.

He is a graduate of Otterbein College of Westerville, Ohio, and has had over 5 years' experience in the marketing of petroleum products for a major company.

Chang Named to Rutgers Food Science Department

Stephen S. Chang, until recently a senior research chemist with A. E. Staley Manufacturing Co., has been appointed to the faculty of **Rutgers University.**

Dr. Chang was named with the rank of associate professor to the department of food science at the University's College of Agriculture. He has a special interest in the technology of fats and oils.

Stephen S. Chang

He was research associate in food technology at the University of Illinois and worked 2 years as research chemist with Swift & Co. in Chicago before joining the Staley firm, where he was employed 3 years.

Cargill Inc.'s vegetable oil division in 1960 more than doubled soybean crushing capacity at its recently acquired Sioux City, Iowa, plant, and added an oil degumming plant at Norfolk, Va., and new soybean meal processing equipment at Cedar Rapids, Iowa.

A major expansion program of **North Iowa Cooperative Processing Association**, Mason City, started in 1959 was completed in 1960, Manager Glenn Pogeler reported at the annual meeting Dec. 15. A 500,000-gallon soybean oil storage tank, bulk soybean meal loadout tanks and a building over the meal drier were added during the year at a total cost of $70,000. The soybean meal processing capacity and investment in the plant have about doubled since it started operations in 1943.

The winter meeting of the **Mid-south Soybean and Grain Shippers Association** will be held at the Jung Hotel in New Orleans Feb. 20 and 21, Paul C. Hughes, the secretary at Box 658, Blytheville, Ark., has announced.

Calvin Shields has been promoted to plant engineer at **Central Soya's** Chattanooga plant. He was transferred to Chattanooga from Central Soya's Gibson City, Ill., plant where he was assistant maintenance and repair superintendent. He joined the company in 1958.

Appointment of Robert D. Coonley as advertising manager for **Archer-Daniels-Midland Co.** has been announced. He has been product advertising manager for ADM's chemicals and bakery flours for the past 3½ years.

W. T. Nicholson has formed his own company, the **W. T. Nicholson Co.**, as a broker, commission merchant and jobber to deal in soybeans, soybean oil, and soybean meal. Address is 204 Rode Center Bldg., Greenville, Miss.

ATTENTION

All Soybean Seed Growers

Each year The Soybean Digest publishes a SOYBEAN SEED DIRECTORY in the February, March and April issues.

If you have any soybean seed you want to sell . . . here's a sure-fire way to reach the leading producers all over the country.

For the small investment of only $3.00 you can list one variety for all three issues . . . and $1.50 for each additional listing.

ACT TODAY—It's an easy and profitable way of selling your soybean seed. Just fill in the blank below and mail to SOYBEAN SEED DIRECTORY, % The Soybean Digest, Hudson, Ia.

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Gentlemen:

Please list for me in the February, March and April issues of THE SOYBEAN DIGEST the following quantities and varieties of soybean seed.

(additional varieties may be listed on another sheet)

Variety	Quantity (bushels)	Certified or Uncertified

Name .....

Address .....

□ Bill Me □ Bill Firm □ Check Enclosed

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CUT HERE CUT HERE

WASHINGTON DIGEST

See Little Expansion of Usage Soon

By GEORGE PETER

IT'S BEEN SAID BEFORE of soybeans that "things couldn't be better." But they are.

That is how 1961 looks for soybeans in USDA's year-end demand-price report from Washington on farm products.

Farm prices. Due to rise more than the usual 15¢ seasonally as crushers and exporters bid up prices for the smaller supply. Average for the crop should be $2 compared to $1.96 of last year.

Supplies. About 582 million bushels, slightly below the past 2 record years. Crushing about 400 million bushels. Export around 140 million bushels. Carryover about 10 million bushels, given seed and feed demand of recent years.

Domestic demand. For bean oil, 3.4 billion pounds, slightly over last year. This assumes total food fat use per person equals current levels, lard down sharply, and cottonseed oil use up. A crush of 400 million bushels would mean about 1 billion pounds over domestic needs, figured to go into export. Bean oil prices, crude Decatur, to average 15%-20% higher than last year, but meal prices down 5%-10%.

Edible oil exports. Prospects have improved again since the report, if anything. Foreign oil crops supplies are turning out to be tighter than expected.

Cottonseed and bean oil probably will set a new export record, about 1.5 billion pounds compared to 1.45 billion last year. But more bean oil is likely to move abroad than cottonseed. Under government programs 900 million pounds are estimated to move compared to 744 million pounds shipped last year. But dollar sales will be down. (See page 10 for more outlook information.)

The Next 20 to 40 Years

An off-the-beaten-track congressional report shows world demand for fats and oils is expected to rise sharply over the next 20 to 40 years, with nearly half the increase beamed at U. S. production availability. The principal increases in demand will come from the Far East, Europe, and Latin America.

Soybeans figure prominently in this growth, although ups and downs are projected until a high point in demand is reached. Requirements as high as 860 million bushels are seen by the year 2000. An interim tapering off at around 1980 as low as 568 million bushels is projected, however, before bean demand starts its new climb.

The report, in the nature of rough preliminary study, has been hastily and incompletely prepared by the Senate select committee on national water resources, as the committee admits. Most of the material is based on USDA sources. The report also bears the earmarks of outside-government sources.

Projections of future demand for soybeans and other major crops needed by the end of the two 20-year periods appear to be estimated in an economy ever trending toward an "animal agriculture" in which protein will be more and more supplied in poultry and livestock meat in comparison to the grains.

In this respect the report fails to take into account the possible effects of the stepped-up marketing of some grains as human food. Left out also is the continued increasing popularity of soybeans as an oil and protein source for human consumption in the United States, particularly as a substitute for meat.

Foreign commercial demand for all U. S. fats and oils, including oil equivalent of oilseeds, should increase to 8.5 billion pounds by 1980 and 12.5 billion by the year 2000, compared to 4.95 billion in 1956, according to the projections.

Tight Storage Looms

USDA grain officials have until sometime in March to decide whether to buy bins to house price-supported crops under loan for what could turn out to be the greatest storage space shortage since 1948.

Extreme early estimates of space needed have been ranging from 500 million to 700 million bushels nationally. USDA sources, however, will confirm need for 400 million bushels nationally at most, which could be cut to about 300 million through reconcentration. Most of the space will be needed for the 1961 crop plus some takeover.

Government men are required by law to find space regardless, including the purchase of bins if the private storage industry cannot supply the need. Official purchasing agents say negotiations with bin manufacturers would have to start at least by late March in order to provide the needed space in time.

The only advice we've been able to find for the storage men is to scramble around and come up with some space. Industry men have been alerted to the need for an additional space for over 50 million bushels in Illinois, Iowa and Indiana, the heavy corn areas. And wheat areas around Kansas City need space for another 50 million bushels. And this is only part of the picture.

But the storage men will have

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troubles. How much should the industry invest in new space? How much grain may move in a stepped-up Food for Peace program, leaving new space empty? Will grain production be cut back?

USDA career grain men aren't very happy, either. It has been only a few months since top brass gave among other reasons for reducing the Uniform Grain Storage Agreement rates that the government could afford to do so because it was in a "good storage position."

Visitor from Liverpool

KEITH BARRETT, economist for the raw materials department J. Bibby & Sons, Ltd., Liverpool, England, soybean processors, was a visitor in this country in November.

- MARKET STREET -

We invite the readers of THE SOYBEAN DIGEST to use MARKET STREET for their classified advertising. If you have processing machinery, laboratory equipment, soybean seed, or other items of interest to the industry, advertise them here. Rate 10¢ per word per issue. Minimum insertion $2.00.

SCHUTTE HAMMERMILL NO. 128, type F, ser. 1821482, 3,200 rpm, model 47. Write, phone, Erie Electric Co., Inc., Buffalo, N. Y. Ph: TL 2-4758.

MISSISSIPPI REGISTERED GULF Rose seed rice. Produced from foundation stock. Resistant to Hoja Blanca and blasting. Very early, medium chain. High yielder, strong straw. Bard Selden, Tunica, Miss.

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MISSISSIPPI CERTIFIED HILL and Jackson soybeans. Produced from registered and foundation stocks. Hand rogued, low mechanical injury, low moisture, high germination and purity. Bard Selden, Tunica, Miss.

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PRATER 75 H.P. DUAL SCREEN pulverizer. Also 100-lb. Richardson meal scale and Union Special 12-inch belt sewing machine. Ray L. Jones, 1923 Hayselton Drive. Jefferson City, Mo.

MISSISSIPPI CERTIFIED REBEL soybeans. Produced from registered seed. Hand rogued. A new variety. High yielder. Tops behind small grain. Supply limited — order early. Bard Selden, Tunica, Miss.

FOR SALE—ANDERSON Expellers and French screw-presses, cookers, driers, 5-high, 48-inch crushing rolls, 36-inch attrition mills, sewing machines, hammermills, cracking rolls, filter presses. Ray L. Jones, 1923 Hayselton Drive, Jefferson City, Mo.

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FOR SALE—HABCO MODEL 2S soybean inoculator and liquid seed treater—new unit. Send for literature and other information to H. A. Brummel Co., P. O. Box 201, Cedar Lake, Ind.

WANTED LOUISVILLE OR Davenport dryer with about 2,000 sq. ft. heating surface. Hartsville Oil Mill, Hartsville, S. C.

QUALITY SEEDS — BURNETT, Clintland 60, Goodfield, Minhafer, Minton, Nehawka, Rodney, etc., oats. Chippewa, Comet, Lindarin, Merit, etc., soybeans. Eldred Buer & Sons, Canby, Minn.

WANTED—FRENCH OR DAVIDson-Kennedy soybean conditioner, good operating condition, all plate-steel construction, six high 80" to 90" diameter super-imposed, steam jacketed kettles about 30" deep, complete with vertical shaft and 220/440-3-60 TEFC motor drive assembly, kettle ring jackets to carry 150 lbs. psi steam pressure with or without motor. State full details and price f.o.b. present location. Address Box No. 319G, the Soybean Digest, Hudson, Iowa.

MINNESOTA CERTIFIED SOYbean seed. Merit: germination 98, purity 99.75. Lindarin: germination 97, purity 99.89. Above varieties hand rogued. Packed in new 1 and 1½ bushel bags. Sewed, tagged and sealed. Merlin Knorr, Madison, Minn.

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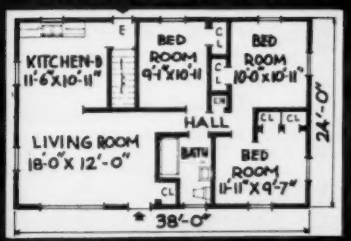

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CROP REPORT

1960, 1959 Crop Estimates Are Cut

THE 1960 SOYBEAN crop was estimated at 559 million bushels, a cut of just a million under a month earlier, by the U. S. Department of Agriculture in its annual crop summary Dec. 16.

At the same time, estimate of the 1959 crop was cut almost 5 million bushels, from 537.9 million bushels to 533.1 million.

USDA made only a slight change in its estimate of harvested acreage as compared with its July 1 report. Final estimate was 23,519,000 acres, up 1 million from 1959. The estimate July 1 was for 23,596,000 acres to be harvested.

The harvested crop was 5% larger than the 1959 crop but 4% short of the 1958 record of 580 million bushels.

Growers planted 24.5 million acres for all purposes compared with 23.4 million in 1959. They harvested just over 96% for beans, the same as the previous season which was the largest proportion of record for this purpose. Soybean hay was cut from 521,000 acres last year, an increase of 23% over 1959's alltime low, but still the third smallest of record. Soybeans for other purposes, at 426,000 acres, is a 25-year low.

The seven major soybean states—Ohio, Indiana, Illinois, Minnesota, Iowa, Missouri, and Arkansas—produced 444,000,000 bushels, comprising 79% of the national total. Although the production trend for this group of states continues upward, their relative importance has declined since the thirties and forties when they normally accounted for more than 90% of the U. S. total.

All of the North Central states except Michigan, Minnesota, and the Dakotas registered increases in acreage over 1959, but only Ohio, Indiana, Missouri, and Kansas harvested acreages larger than in 1958. The balance of the area failed to recover from 1959 declines associated with removal of corn allotments.

In other areas of the nation, acreage reductions from 1959 occurred in only three states—Pennsylvania, Florida, and Mississippi. Minor declines in production were registered in both the North Atlantic and South Central states, but these were far outweighed by an increase in the South Atlantic states.

Wet weather caused some planting delays in much of the main "Soy Belt" and parts of the South, especially heavy producing Arkansas. However, the growing season generally was exceptionally favorable, and stretched out long enough to allow late plantings to reach maturity.

The harvest period, with minor exceptions, was nearly ideal. Although harvest started a few days later than usual in most areas, it was completed near normal dates under mostly ideal conditions. Acreage still remaining to be harvested Jan. 1 was insignificant.

SOYBEANS FOR BEANS

Annual crop summary, December 1960, crop reporting board, AMS, USDA

	Acreage harvested[1]			Yield per acre			Production		
	Average 1949-58	1959	1960	Average 1949-58	1959	1960	Average 1949-58	1959	1960
	1,000 acres			bushels			1,000 bushels		
N. Y.	6	4	5	16.4	16.0	16.0	103	64	80
N. J.	32	39	39	19.7	25.0	24.0	640	975	936
Pa.	21	17	11	17.9	23.0	23.0	376	391	253
Ohio	1,151	1,472	1,535	23.0	25.0	25.0	26,686	36,800	38,375
Ind.	1,885	2,312	2,438	23.4	26.0	27.0	44,327	60,112	65,862
Ill.	4,167	4,796	4,973	24.6	26.0	26.0	103,099	124,696	129,298
Mich.	148	225	216	21.0	24.0	21.0	3,164	5,400	4,536
Wis.	65	95	96	15.0	18.5	16.0	975	1,758	1,536
Minn.	1,794	2,193	2,090	19.0	19.0	20.0	34,660	41,667	41,800
Iowa	2,087	2,369	2,528	23.2	26.5	25.5	48,770	62,778	64,464
Mo.	1,644	2,270	2,344	19.6	22.0	21.5	31,870	49,940	50,396
N. Dak.	90	212	176	13.7	12.0	13.0	1,314	2,544	2,288
S. Dak.	141	137	100	14.3	11.5	17.0	1,954	1,576	1,700
Nebr.	119	146	149	21.3	24.0	28.0	2,484	3,504	4,172
Kans.	380	434	586	12.4	21.0	22.0	4,756	9,114	12,892
Del.	97	145	189	17.8	23.0	24.0	1,825	3,335	4,536
Md.	129	199	236	18.6	21.5	25.0	2,480	4,278	5,900
Va.	197	291	308	18.4	20.5	22.5	3,682	5,966	6,930
N. C.	334	455	565	17.8	22.5	23.5	6,114	10,238	13,278
S. C.	175	370	451	12.5	16.0	18.0	2,307	5,920	8,118
Ga.	52	87	93	11.4	16.0	16.5	633	1,392	1,534
Fla.	24	46	43	19.9	23.0	24.0	496	1,058	1,032
Ky.	130	167	182	18.6	24.0	23.0	2,435	4,008	4,186
Tenn.	210	336	382	18.7	22.5	22.0	3,934	7,560	8,404
Ala.	94	140	146	19.4	22.5	24.5	1,833	3,150	3,577
Miss.	496	903	888	16.7	23.0	23.0	8,540	20,769	20,424
Ark.	1,024	2,318	2,382	18.5	24.5	22.5	19,581	56,791	53,595
La.	76	148	167	18.2	24.0	24.0	1,436	3,552	4,008
Okla.	43	83	120	12.6	19.0	21.0	544	1,577	2,520
Texas	10	78	78	[2]20.3	29.0	28.0	244	2,262	2,184
U. S.	16,820	22,487	23,516	21.3	23.7	23.8	361,270	533,175	558,778

[1] Equivalent solid acreage. (Acreage grown alone, with an allowance for acreage grown with other crops.) [2] Short-time average.

Calls Price of Canadian Soybeans Unsatisfactory

"PRICE STRUCTURE on Canadian soybeans is not satisfactory. It is not a problem of overproduction. As soybean growers we are not faced with surpluses," A. E. Jolley, chairman of the Ontario Soya-Bean Growers Marketing Board, reported at the annual meeting at Chatham Nov. 29.

"In the past," said Mr. Jolley, "the Department of Agriculture has placed emphasis on production. We are now pleased to learn that a program placing emphasis on marketing is being undertaken by the Department of Agriculture.

"The question of whether the producers should crush and process a portion of the soybean crop is still under study. This is being done extensively in the United States. The profits may be quite small but the future certainly looks very bright."

Said K. A. Standing, secretary-manager of the board: "Canadian soybeans' quality and availability at world prices, along with the small size of our shipments, continue to make soybeans attractive in the United Kingdom market. U. K. buyers are constantly interested in any Canadian soybean offerings.

"Trade in soybean meal with the U. K. amounts to more than the soybean meal produced from all the soybeans grown in Ontario, or a dollar value in excess of $10 million.

"Normally a heavy consumer of rapeseed and olive oil, Europe is gradually swinging to soybean oil, largely due to price. Indications are that soybean oil will continue to be consumed in large quantities since it is easier for manufacturers to process into edible products."

GROWTH*

**A MARK OF CENTRAL SOYA*

A new line, higher on the door frame! He's still growing . . . and mighty proud of it.

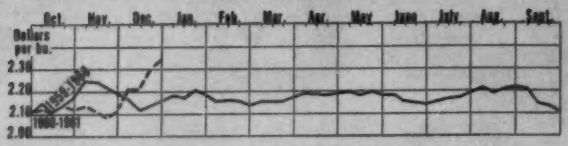
At Central Soya, continued healthy GROWTH is a major goal . . . not in size alone, but in the development of better products and processes for agriculture and industry.

Central Soya
Fort Wayne, Indiana

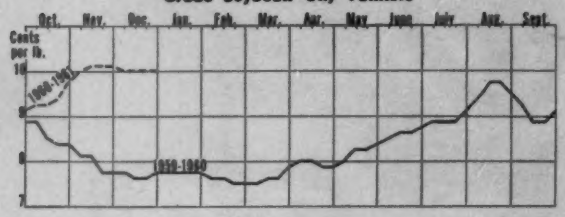
Divisions: • McMillen Feed • Processing • Grain • Chemurgy

TRENDS AT A GLANCE (Weekly Close)

No. 1 Cash Soybeans, Chicago



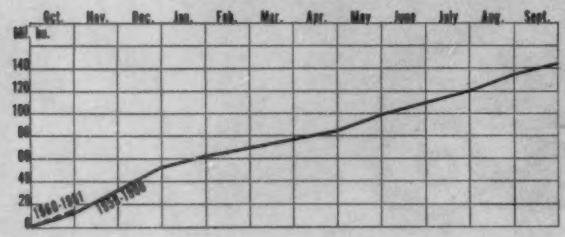
Crude Soybean Oil, Tankers



Bulk Soybean Meal, Decatur

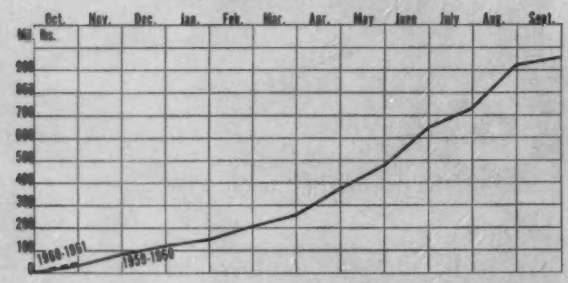
Soybean Exports

Cumulative year beginning Oct. 1



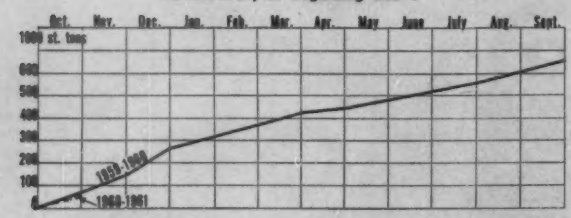
Soybean Oil Exports

Cumulative year beginning Oct. 1



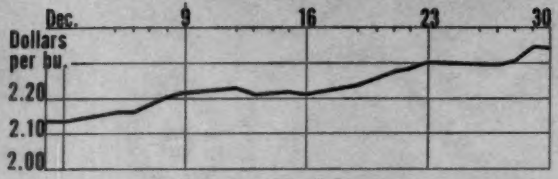
Soybean Cake and Meal Exports

Cumulative year beginning Oct. 1

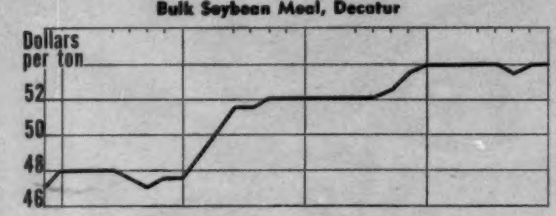


DAILY MARKET PRICES

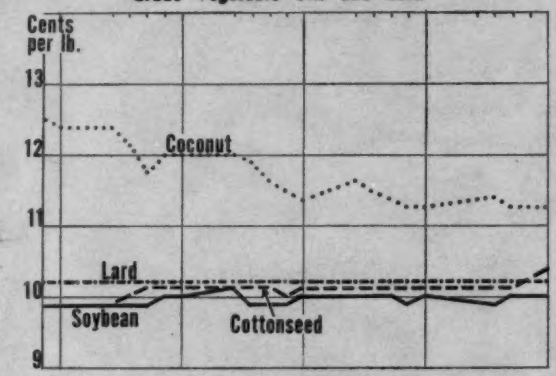
No. 1 Cash Soybeans, Chicago



Bulk Soybean Meal, Decatur



Crude Vegetable Oils and Lard



CASH PRICES, DECEMBER 1960*

Dec.	No. 1 yellow soybeans Chicago	Bulk soybean meal Decatur	Soybean oil Decatur	Cottonseed oil Mississippi Valley	Coconut oil Pacific Coast	Lard Chicago
1	$2.13	$47.00	$.09⅞	$.09⅞	$.12½	$.1020
2	2.13¼	48.00	.09⅞	.09⅞	.12⅜	.1020
3	Saturday					
5	2.16	48.00	.09⅞	.09⅞	.12⅜	.1020
6	2.16	47.50	.09⅞	.10	.12⅛	.1020
7	2.18	47.00	.09⅞	.10⅛	.11¾	.1020
8	2.20	47.50	.10	.10⅛	.12	.1020
9	2.21	47.50	.10	.10⅛	.12	.1020
10	Saturday					
12	2.22¼	51.50	.10⅛	.10⅛	.12	.1020
13	2.20¼	51.50	.09⅞	.10⅛	.11⅞	.1020
14	2.20¾	52.00	.09⅞	.10⅛	.11⅜	.1020
15	2.21½	52.00	.09⅞	.10	.11½	.1020
16	2.21	52.00	.10	.10⅛	.11⅜	.1020
17	Saturday					
19	2.23¼	52.00	.10	.10⅛	.11⅜	.1020
20	2.25¼	52.00	.10	.10⅛	.11½	.1020
21	2.27¼	52.50	.10	.18⅛	.11⅜	.1020
22	2.27¾	53.50	.09⅞	.10⅛	.11¼	.1020
23	2.30	54.00	.10	.10⅛	.11¼	.1020
24	Saturday					
26	Christmas					
27	2.29¼	54.00	.09⅞	.10⅛	.11⅜	.1020
28	2.30¼	53.50	.10	.10⅛	.11¼	.1020
29	2.34¼	54.00	.10	.10¼	.11¼	.1020
30	2.34	54.00	.10	.10⅜	.11¼	.1020

* From Wall Street Journal, Chicago.

1959 AND 1960 SOYBEAN CROPS

	1960	1959
Total supply Oct. 1	582,038,000 bu.	595,292,000 bu.
Total soybeans placed under price support as of Nov. 30	13,747,000 bu.	22,109,000 bu.
Total crushed for oil or processed through Nov. 30	72,303,000 bu.	71,393,000 bu.
Total soybeans exported through Nov. 30	41,050,000 bu.	32,503,000 bu.
Balance on hand Dec. 1 for processing, export or carryover	428,685,000 bu.	452,396,000 bu.
Total soybeans inspected for overseas export plus lake shipments to Canada Oct. 1-Dec. 23	56,053,758 bu.	50,696,171 bu.

"I NEVER SAW BEANS GROW SO BIG...

...and I've increased my yield 5 to 10 bushels an acre since I've been using ORTHO Soybean Seed Protectant. Treated beans mature a lot faster, so you don't run the risk of losing the harvest with the frost. And you get away from green pods." Grower Harold Hoge of Scribner, Dodge County, Nebraska, knows what he's talking about. Last year, even when heavy rains caused crusted ground right after planting, he got a fine stand. **ORTHO Soybean Seed Protectant** contains ORTHOCIDE (captan) to protect seed from blight, damping off and decay. It coats the seed and gives added protection in the surrounding soil. A built-in lubricant aids seed-flow, prevents cracking and splitting, insures uniform planting. Mix it right in the planter box with the seed. **The 1 lb. can costs $1.25, treats seed to plant about 4 acres.**

T. M.'S REG. U. S. PAT. OFF.: ORTHO, ORTHOCIDE ON ALL CHEMICALS, READ DIRECTIONS AND CAUTIONS BEFORE USE.

Mr. Hoge in his soybean acreage. He uses ORTHO Soybean Seed Protectant at the rate of 1 lb. to 5 bushels. Cost averages about 45¢ an acre.

ORTHO®

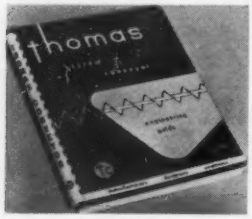
HELPING THE WORLD GROW BETTER

CALIFORNIA CHEMICAL COMPANY, ORTHO DIVISION

Des Moines, Iowa; Dallas, Tex.; Memphis, Tenn.; Toledo, Ohio; Haddonfield, N. J.

NEW PRODUCTS and SERVICES

SCREW CONVEYOR. Thomas Screw Conveyor Engineering Guide, 150 information-packed pages, is now available free to qualified personnel who use or specify screw conveyor equipment. The Guide contains several pages showing typical installations of screw conveyors. Three chart-and-art-filled sections on engineering, components and layouts cover the 83 center pages.



Final portion of this 8½-in. x 11-in. Guide shows additional products which Thomas manufactures, a part number index, a general index, and some of the facilities of the 91,000-square-foot Thomas plant.

For further information write Soybean Digest 1c, Hudson, Iowa.

DRYING UNIT. What is called the world's largest in-storage grain drying unit—a single 36 ft. by 16 ft. galvanized corrugated steel bin capable of drying, storing and maintaining a full 13,500-bushel crop—has been announced by Black, Sivalls & Bryson, Inc., developer of the "King Size" grain bins.

This new one-unit harvest control system will enable the farmer to harvest from 1,250 to 2,500 bushels of 25% moisture corn per day with maximum speed and efficiency. The rate of drying more than keeps pace with the capacity of today's modern harvesting equipment.

The grain comes straight from the field into the bin where it is automatically leveled and dried.

For further information write Soybean Digest 1a, Hudson, Iowa.

MOISTURE TESTER. The S. Howes Co. will act as sole distributor of Universal Moisture Testers to all grain processors in the continental United States.

George R. Willis, vice president of sales for S. Howes, announced that his entire staff of sales engineers has been equipped with models of the Universal Moisture Tester since Dec. 1. "Moisture content is of vital concern to grain handlers and processors everywhere. These portable units will enable our men to render a valuable service through accurate and on-the-spot measurements of any grain sample," says Mr. Willis.

Universal Moisture Testers are designed and produced by the Moore-Milford Corp.

For further information write Soybean Digest 1b, Hudson, Iowa.

TEMPERATURE PROBE. A new type of portable temperature probe has been developed and recently made available to the grain trade by the Rolfes Electronics Corp.

Unlike old-style probes, the new Rolfes model features a thermistor-tipped temperature cable which is completely separated from the probe itself. The termistor tip fits into a special protective slot in the probe end for insertion in the grain. When the desired depth is reached, however, the probe is simply pulled up and the thermistor is ejected, remaining at the spot you're checking until pulled up by the cable.

Temperatures are read quickly and accurately by plugging the cable into the portable meter.

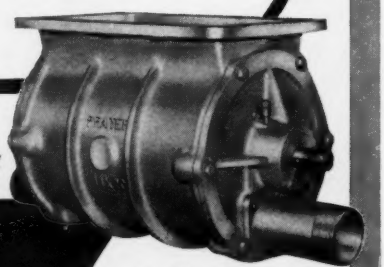
For further information write Soybean Digest 1d, Hudson, Iowa.

PRATER ROTARY FEEDERS
FOR DUST CONTROL
VOLUMETRIC FEEDING
PNEUMATIC CONVEYING

8" STANDARD DUTY

12" HEAVY DUTY

10 DIFFERENT MODELS
3 OUTSTANDING DESIGNS
5 MATERIALS OF CONSTRUCTION
25 ASSEMBLY COMBINATIONS



14 x 20
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WRITE FOR
BULLETIN P-58

PRATER Foremost Builder of Rotary Airlocks

PRATER PULVERIZER COMPANY
1527 South 55th Court — Chicago 50, Illinois

IN THE MARKETS

EXPORTS. Preliminary data on U. S. exports of soybeans, soybean and cottonseed oils, and soybean and cottonseed cakes and meals, for October 1960, with comparable data for October 1959, and revised totals for the marketing year 1959-60, reported by USDA's Foreign Agricultural Service.

	Unit	October 1959	October 1960	October-September 1959-60[1]
Soybeans	bu.	12,087,917	14,050,231	141,603,690
Soybean oil:				
Crude	lb.	12,088,274	24,423,715	608,067,323
Refined but not further processed	lb.	12,828,162	6,991,249	98,325,979
Refined, deodorized and hydrogenated	lb.	7,029,528	10,311,452	246,360,303
Cottonseed oil:				
Crude	lb.	24,149,970	3,509,948	289,821,656
Refined but not further processed	lb.	36,159,079	6,529,750	167,389,238
Refined, deodorized and hydrogenated	lb.	4,092,611	2,635,818	46,102,488
Cottonseed cake and meal	s.t.	39,550	15,102	140,196
Soybean cake and meal	s.t.	57,096	52,066	652,300

[1] Includes any revisions made by the Bureau of the Census

Soybeans: Inspections for export by ports and areas November 1960 (1,000 bu.)

Lake Ports		Subtotal	4,370
Duluth	425	**Gulf**	
Superior	1,013	Mobile	7,240
Chicago	2,390	New Orleans	8,267
Toledo	1,322	Port Allen	2,405
Subtotal	5,150	Subtotal	17,912
Atlantic		Totals	
Philadelphia	517	Nov. 1960	27,432
Baltimore	1,423	Jan.-Nov. 1960	127,178
Norfolk	2,430	Jan.-Nov. 1959	99,650

Based on weekly reports of inspections for export by licensed inspectors and does not include rail or truck movement to Canada or Mexico. Agricultural Marketing Service.

Soybeans: Inspections for export by coastal areas and country of destination November 1960 (1,000 bu.)

Great Lakes		**Gulf**	
Canada	4,359	Denmark	1,628
Norway	255	United Kingdom	37
Netherlands	23	Netherlands	6,721
Other	513	Belgium	747
Subtotal	5,150	West Germany	2,491
Atlantic		Israel	542
United Kingdom	1,764	Taiwan (Formosa)	248
Belgium	250	Japan	4,871
West Germany	38	Other	627
Israel	1,371	Subtotal	17,912
Taiwan (Formosa)	546	Grand total	27,432
Other	401	Total Jan.-Nov. 1960	127,178
Subtotal	4,370	Total Jan.-Nov. 1959	99,650

Based on weekly reports of inspections for export by licensed inspectors and does not include rail or truck movement to Canada or Mexico. In some cases, the ultimate destination of the soybeans exported is not shown on the inspection reports. Therefore, the quantity for each country may vary from official Census data which are based on custom declarations. Agricultural Marketing Service.

Title I, P. L. 480 exports for July 1960-November 1960

	November 1960			July 1960-November 1960		
	Metric tons	Unit	Quantity	Metric tons	Unit	Quantity
Cottonseed oil	....	....	....	9,966	lb.	21,971,000
Soybean oil	30,233	lb.	66,653,000	140,979	lb.	310,805,000

Foreign Agricultural Service.

PRICES. Average price for soybeans received by farmers, effective parity, and support rates, reported by Agricultural Marketing Service (dollars per bushel).

Average farm price			Effective parity	Ave. price as percent of parity	National average price support rate		
Nov. 15 1960	Oct. 15 1960	Nov. 15 1959	Nov. 15 1960	Nov. 15 1960	1960 crop	1959 crop	1958 crop
1.96	1.94	2.00	2.89	68	1.85	1.85	2.09

Average farm and parity prices from crop reporting board.

Soybean prices compared with market value of soybean oil and meal

	Soybean oil		Soybean meal		Value of oil and meal	Market price	Spread between soybean price and value of oil & meal
	Average price at crushing plant	Value from bu. of soybeans[1]	Bulk price at Decatur	Value from bu. of soybeans[1]	from bu. of soybeans[1]	No. 1 yellow soybeans Ill. pts.	
	Cts. per pound	Dollars	Dollars per ton	Dollars	Dollars	Dollars per bu.	Cents
Nov. 1960	10.0	1.10	44.50	1.05	2.15	2.05	10
Oct. 1960	9.3	1.02	48.95	1.15	2.17	2.04	13
Sept. 1960	9.0	0.99	53.75	1.26	2.25	2.07	18
Aug. 1960	9.4	1.03	50.30	1.18	2.21	2.13	8
July 1960	8.9	0.98	50.75	1.19	2.17	2.09	8
Nov. 1959	8.0	0.88	58.50	1.37	2.25	2.09	16

[1] Based on assumption that a bushel of soybeans yields 11 pounds of oil and 47 pounds of meal. This table is for statistical comparison only. It does not reflect actual operating margins since prices are simple averages and do not take into account location differentials or actual purchases and sales of soybeans, soybean oil or soybean meal.

Soybean meal: Monthly average wholesale prices, dollars per ton, bulk

	Market	Nov. 1960	Oct. 1960	Nov. 1959
44% solvent	Atlanta	52.90	58.35	67.30
	Baltimore	59.50	63.00	71.20
	Boston	59.70	63.00	71.95
	Buffalo	56.30	60.40	68.95
	Chicago	48.00	52.75	61.90
	Cincinnati	52.50	56.70	65.60
	Decatur[1]	44.50	48.95	58.50
	Kansas City	48.10	51.70	61.60
	Memphis	48.20	53.25	62.50
	Minneapolis	49.10	52.90	61.05
	New York	60.70	64.30	73.55
	San Francisco	66.75	70.50	79.80
50% solvent	Minneapolis	54.40	58.15	66.55
	Chicago	52.50	57.00	67.00

INSPECTIONS. Inspected receipts, by grade and percent, reported by Agricultural Marketing Service.[1]

	November 1960		October 1960		November 1959		Oct.-Nov. 1960		Oct.-Nov. 1959	
Grade	1,000 bu.	Pct.	1,000 bu.	Pct.	1,000 bu.	Pct.	1,000 bu.	Pct.	1,000 bu.	Pct.
No. 1	12,203	17	38,296	29	11,416	15	50,499	25	31,566	18
No. 2	34,412	48	61,064	45	36,112	47	95,476	47	85,697	50
No. 3	17,233	24	22,369	17	21,248	27	39,602	19	39,827	23
No. 4	5,601	8	9,750	7	5,552	7	15,351	7	10,527	6
Sample	1,739	3	2,594	2	2,844	4	4,333	2	4,822	3
Total	71,188	100	134,073	100	77,172	100	205,261	100	172,439	100

Grade	October 1959-September 1960 1,000 bu.	Pct.	October 1958-September 1959 1,000 bu.	Pct.	October 1957-September 1958 1,000 bu.	Pct.
No. 1	79,894	19	100,023	24	84,115	23
No. 2	217,647	52	194,766	48	161,127	43
No. 3	84,775	20	71,409	18	87,697	24
No. 4	25,026	6	28,803	7	28,162	8
Sample	11,013	3	11,201	3	8,292	2
Total	418,355	100	406,202	100	369,393	100

[1]Carlot receipts have been converted to bushels on the basis that 1 carlot equals 1,750 bushels.

Soybeans: Barge inspected receipts and shipments by Midwest river markets, November 1959 and 1960 (1,000 bu.)

Receipts	1960	1959
Chattanooga	3,082	194
Guntersville	787	97
Chicago	2,009	4,585
St. Louis	57	41
New Orleans	5,418	5,199
Mobile	706	726
Port Allen	1,407	3,564
Total (Nov.)	13,466	14,406
Total (May-Nov.)	53,048	46,676
Shipments		
LaCrosse	132	117
Minneapolis	247	1,367
Peoria	196	84
Springfield	254	....
Cairo	164	289
Alton	161	193
St. Louis	949	1,028
Owensboro	104	75
Henderson	165	145
Evansville	48	87
Kankakee	63	....
Keokuk	345	115
Davenport	120	38
Kansas City	180	....
Stoneville	880	736
Memphis	299	542
Burlington	44	....
Total (Nov.)	4,351	4,816
Total (May-Nov.)	32,477	23,100

PROCESSING OPERATIONS. Reported by Bureau of the Census for October and November 1960.

Primary products except crude oil at crude oil mill locations: Production, shipments and transfers, and stock, November 1960-October 1960 (1000 tons)

	Production		Shipments and transfers		Stocks end of month	
Soybean:	November 1960	October 1960	November 1960	October 1960	Nov. 30, 1960	Oct. 31, 1960
Cake and meal	851.6	819.2	832.6	806.8	110.7	91.7
Millfeed (hull meal)	13.1	10.9	14.0	10.1	3.4	4.3

Soybeans: Net receipts, crushings, and stocks at oil mills, by states, November 1960-October 1960 (1000 tons)

	Net receipts at mills[1]		Crushed or used		Stocks at mills	
	Nov. 1960	Oct. 1960	Nov. 1960	Oct. 1960	Nov. 30, 1960	Oct. 31, 1960
U. S.	1,799.4	3,546.7	1,102.2	1,066.9	3,671.7	2,974.5
Arkansas	156.8	63.9	27.6	9.4	189.2	60.0
Illinois	262.9	1,046.3	346.9	339.8	785.8	869.8
Indiana	130.5	416.7	94.7	106.8	383.5	347.8
Iowa	180.3	555.9	198.7	191.4	434.4	452.8
Minnesota	66.0	196.2	68.3	77.1	130.5	132.8
Mississippi	172.1	99.8	37.2	15.7	224.1	89.2
Missouri	(2)	188.3	(2)	(2)	(2)	(2)
Nebraska	(2)	(2)	(2)	(2)	(2)	(2)
North Carolina	(2)	8.1	(2)	(2)	78.7	5.1
Ohio	82.4	444.6	97.0	100.0	366.3	380.8
Tennessee	324.6	239.7	78.9	82.9	418.4	172.7
All other	423.8	287.2	152.9	143.8	660.8	463.5

Note: Detail figures may not add to totals because of independent rounding. [1] Net receipts for each state are derived from the quantity of beans crushed and net change in stocks. [2] Included in "All other" to avoid disclosure of figures for individual companies.

Soybean products: Production and stocks at oil mill locations, by states, November 1960-October 1960

	Crude oil (millions of pounds)				Cake and meal (thousands of tons)[1]			
	Production		Stocks		Production		Stocks	
	November 1960	October 1960	Nov. 30, 1960	Oct. 31, 1960	November 1960	October 1960	Nov. 30, 1960	Oct. 31, 1960
U. S.	401.1	390.7	106.2	98.0	864.7	830.1	114.1	96.0
Arkansas	9.8	3.4	1.5	0.8	21.2	7.3	6.4	1.5
Illinois	129.6	128.5	33.5	22.5	265.3	257.5	39.4	36.7
Indiana	35.4	37.4	4.5	(2)	75.2	85.0	13.7	(2)
Iowa	70.6	68.9	11.6	15.8	159.8	152.7	24.8	16.4
Minnesota	24.0	27.7	23.8	16.0	53.4	60.8	4.0	3.6
Mississippi	13.7	5.6	2.5	1.7	28.8	11.9	5.9	1.4
Missouri	(2)	(2)	(2)	1.8	(2)	(2)	(2)	(2)
Nebraska	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
N. Carolina	(2)	(2)	0.7	(2)	(2)	(2)	0.7	1.3
Ohio	34.6	36.1	7.5	7.1	78.1	79.4	4.0	5.9
Tennessee	28.3	30.6	9.9	10.8	60.5	62.7	4.2	8.2
All other	55.1	52.5	10.7	21.5	122.4	112.8	11.0	21.0

Note: Detail figures may not add to totals because of independent rounding. [1] Includes mill feed (hull meal). [2] Included in "All other" to avoid disclosure of figures for individual companies.

FACTORY USE VEGETABLE OILS for September and October 1960. Reported by Bureau of the Census.

Selected edible oils: Production, consumption, and factory and warehouse stocks, October 1960 and September 1960 (million pounds)

	Cottonseed oil		Soybean oil	
Production:	Oct. 1960	Sept. 1960	Oct. 1960	Sept. 1960
Crude oils	258.4	133.3	390.7	298.4
Refined oils (once refined)[1]	160.7	71.5	271.8	264.3
Consumption in refining[1]	171.6	76.9	283.0	276.9
Consumption in selected edible and inedible products, total[2]	109.0	91.8	275.3	265.4
Consumption in edible products, total	108.6	91.3	257.5	248.1
Baking or frying fats	32.5	27.8	105.9	98.6
Salad or cooking oil	62.4	51.1	51.1	60.3
Margarine	12.6	11.3	98.1	86.9
Other edible products[3]	1.1	1.1	2.4	2.3
Stocks, end of month, total[2]	322.6	216.8	365.9	307.5
Crude oils	140.4	71.7	225.3	163.6
Refined oils	182.2	145.1	140.6	143.9

[1] Production of refined oils covers only once-refined oil. Degummed soybean oil is reported as crude oil. [2] Includes hydrogenated fats and other oils "in process," (e.g. refined cottonseed includes stocks of stearin). [3] Includes confectioners fats.

St. Joseph	302	6,131	308
St. Louis	5,097	1,508	4,843
Toledo	6,202	0	4,946
Wichita	0	15,953	0
Visible supply	51,291	153,593	48,600
Portland-Columbia R.	0	9,675	0
San Francisco Bay	0	10,211	0
Grand totals			
This week	51,291	173,479	48,600
Year ago	39,928	152,950	37,533

SUPPLY, DISTRIBUTION of soybeans for the 1957-60 crop years, from Agricultural Marketing Service (1,000 bushels).

Item	1960-61	1959-60	1958-59	1957-58
Carryover, Oct. 1	23,260	62,117	21,083	9,897
Production	558,778	533,175	579,713	483,715
Total supply[1]	582,038	595,292	600,796	493,612
Farm use, including seed for season	40,000	39,000	28,000	34,000
Quantity remaining for processing, export or carryover	542,038	556,292	572,796	459,612
Disappearance Oct. 1 through Nov. 30:				
Crushed for oil or processed[2]	72,303	71,393	66,993	57,311
Exported[3]	41,050	32,503	27,842	25,493
Total	113,353	103,896	94,835	82,804
Balance on Dec. 1 for processing, export or carryover	428,685	452,396	477,961	376,808

[1] Imports not included because negligible. [2] No allowance is made for new crop crushings prior to Oct. 1. [3] Estimated.

Utilization of soybean products

	Crop year 1959-60	Crop year 1958-59	Crop year 1957-58
Soybean oil meal	%	%	%
Livestock feed	94.3	96.0	97.3
Industrial	.2	.1	.2
Fertilizer	....	....	....
Export	5.5	3.9	2.5
	100.0	100.0	100.0
Soybean oil			
Edible	92.0	92.2	89.5
Industrial	8.0	7.8	10.5
	100.0	100.0	100.0

From National Soybean Processors Association.

PRICE SUPPORT. Totals of 1960-crop soybeans put under support through November 1960 compared to 1959-crop total a year earlier, reported by Agricultural Marketing Service, (bushels).

Warehouse-stored loans	Farm-stored loans	Purchase agreements	Total put under support through Nov. 30, 1960	Total put under support through Nov. 30, 1959
6,850,105	6,853,952	42,833	13,746,890	22,109,279

Recourse loans included in the above totals amounted to 44,680 bushels. Repayment of 1960-crop support loans through November included 7,513 bushels. Most soybeans were put under support in the following states: Iowa, 4,921,428 bushels; Minnesota, 2,530,899 bushels; Illinois, 2,374,962 bushels; and Missouri, 1,212,043 bushels.

TERMINAL STOCKS of soybeans. Includes all soybeans in public elevators including government-owned stocks. Does not include stocks in elevators attached to processing plants and other processing facilities. For Friday or Saturday preceding date of report. By Agricultural Marketing Service (1,000 bu.)

U. S. soybeans in store and afloat at domestic markets

	Nov. 29	Dec. 6	Dec. 13
Amarillo	0	15,303	0
Baltimore	2,030	0	1,752
Buffalo	137	0	137
Chicago	13,892	2	13,301
Afloat	0	0	416
Des Moines	707	0	707
Duluth	2,151	0	2,376
Enid	0	3,108	0
Fort Worth	0	21,098	0
Galveston	0	741	0
Hutchinson	0	5,296	0
Indianapolis	4,114	0	3,776
Kansas City	3,957	19,029	4,034
Lincoln	0	7,551	0
Lubbock	0	43,430	0
Milwaukee	72	0	154
Minneapolis	2,339	0	2,471
New Orleans	2,350	133	3,007
Afloat	3,840	1,040	2,440
Omaha	1,856	3,718	1,859
Peoria	696	100	685
Philadelphia	276	0	171
Salina	0	7,853	0
Sioux City	1,273	1,599	1,217

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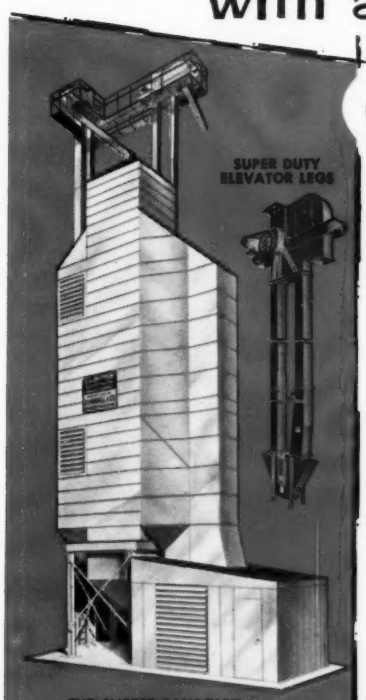

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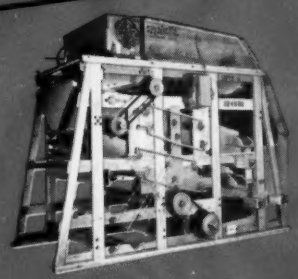

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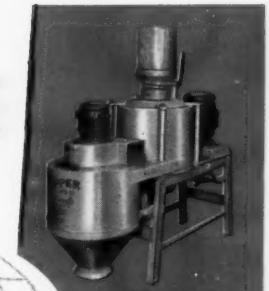

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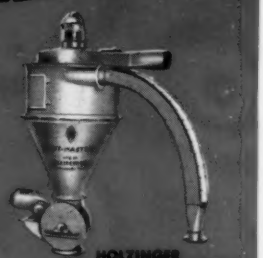
VIBRATING
CONVEYORS



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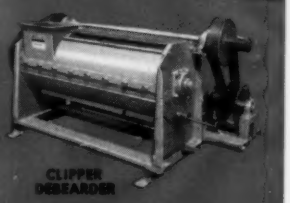

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